

**RESPONSES BY KENYA ELECTRICITY GENERATING COMPANY TO  
CHANGING MACRO ENVIRONMENTAL CONDITIONS IN KENYA**

**BY:**

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**DECLARATION**

I declare that this research project is my original work and any of its content has never been submitted to any other institution for the award of Masters, degree, diploma or certificate.

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This project has been carried out by the student under my supervision and I confirm that it is being submitted to the university with my approval as the student supervisor.

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## **DEDICATION**

This work is dedicated to Jane Mwaniki and Edwin Ndungu for the unconditional support you have accorded me during this period of my study.

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## **ABBREVIATION**

BPR:	Business Process Outsourcing
CEO:	Chief Executive Officer
ERC:	Energy Regulation Commission
GDC:	Geothermal Development Company
GNP:	Gross National Product
ICT;	Information Communication Technology
IPP:	Independent Power Producers
IT:	Information Technology
KETRACO:	Kenya Electricity Transmission Company
KPC:	Kenya Power Company
KPLC:	Kenya Power and Lighting Company
TQM:	Total Quality Management



## **ABSTRACT**

The purpose of this study was to investigate the responses by Kenya Electricity Generating Company to changing macro environmental conditions in Kenya. The basis of the problem regarding the environment in which a firm operates that the research study aimed to explore is discussed based on the following research objectives:

- i. To determine the response strategies KenGen has adopted to cope with changes in the macro environmental factors affecting the power industry in Kenya.
- ii. To establish the factors influencing the response strategies adopted by KenGen to cope with the environmental challenges.

To meet the objectives of the study, a case study survey was chosen. The target population of the study consisted of the top and middle management positions of KenGen. A sample of six persons from the top and middle management were interviewed. Interview guides were used to collect data from the managers. The content analysis technique was used to analyse the data. The findings emerging from the analysis were used to compile this report.

The research study concludes that a company's operating environment is affected by macro environmental factors such as political changes, economic changes, technological changes, legal changes, ecological changes, social and cultural changes.

Further, the research study concludes that the government is the major constraint to response strategies adopted by KenGen to cope with the environmental changes. Other factors included competition as well as funding

Recommendations based on the findings of this study propose the following measures be taken by the organization: take advantage of the chances the economy gives especially in its growth phase.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background**

All organizations depend on the environment. They are dependent on the environment for their inputs as well as outputs. The environment is constantly changing, Ansoff (1987). This therefore makes it necessary for organizations to constantly align and re-align various activities in order to survive in this turbulent environment.

The organizations need to formulate and implement strategies that will enable them to plan and act on future eventualities. Strategy is about winning. Strategy formulation therefore guides the actions and decisions made by an organization and helps them achieve long term survival and prosperity.

KenGen, like many other organizations, is constantly faced with the challenges of adapting to changes in environmental conditions. For such organizations to survive, it is important to formulate and implement strategies that will counter such turbulence.

#### **1.1.1 Response Strategies**

There is need for organizations to align themselves to the changes in the external environment. This requires undertaking Strategic Responses that will help them to counter the environmental turbulence hence remain relevant in the industry. Various Strategies can be undertaken in the effort of aligning and realigning the organizations activities to such turbulence.

According to Huczynski and Buchanan (2007), organizational change is a strategic imperative. This means that radical shifts or Strategic Change are required in order to cope with the many and unpredictable changes in the wider social, economic, political and technological environment.

Various approaches have been adapted in the process of responding to turbulence in the environment. Organizations may adapt either planned approaches or emergent approaches. The planned approaches are predominant in that organizations formulate pre-planned methods in prediction of the changes likely to occur in the environment. These approaches enable the organization to predict their position given certain changes in the environment. Emergent approaches view environmental turbulence as a continuous, open-ended and unpredictable

process for align and re-align an organization to the turbulent environment. The two approaches are significant in Managing response to change within any organization.

Benchmarking is one of the response strategies, it is defined as an organization's assessment of the performance and practices of other organizations and competitors in an effort to analyze and compare its own performance. Benchmarking is essential for organizations to raise their standards (Huczynski and Buchanan, 2007).

Information Technology is the world mover today, IT hardware and systems keep evolving after every few months, new information technologies with enhanced connectivity capabilities can trigger the transformation of industry structures and change the sources of competitive advantage. Such technological changes may trigger strategic responses that seek to capture advantages of technological leadership. Those who are among the first to respond obtain competitive benefits of volume and experience that may not accrue to those who follow.

Total Quality Management is described as a continuous process of improvement for individuals, groups of people and the whole organization (Kanji and Asher, 1996). This approach that was inspired by the Japanese and was used to improve organizational performance and effectiveness. TQM views an organization as a collection of processes. It maintains that organizations must strive to continuously improve these processes by incorporating the knowledge and experiences of workers. The simple objective of TQM is "Do the right things, right the first time, every time".

Performance contracting gives an organization a competitive edge over other organizations since it's a binding commitment. The parties involved are committed to certain courses that yield positive results in the organization. It involves negotiating the targets based on the strategic plan of the organization. Signing the contract indicates commitment by the parties to implement the strategic plan. A performance contract refers to a formal and legally enforceable agreement between an employer and employees defining the performance expectations to be delivered by the employees as well as the responsibilities of the two parties in achieving the desired results.

The concept of culture is particularly important when attempting to manage organization-wide change. Practitioners are coming to realize that, despite the best-laid plans, organizational change must include not only changing structures and processes, but also changing the

corporate culture as well. Mullins (2007) sees organization culture as a collection of traditional values, policies, beliefs and attitudes that constitute a pervasive context for everything we do and think in an organization. Organizational culture reflects the underlying assumptions about the way work is performed, what is acceptable and not acceptable, and what behaviour and actions are encouraged and discouraged within the organization.

### **1.1.2 Macro-Environment**

All organizations are dependent on the environment. They depend on the environment for their inputs and outputs. Bateman and Zeithaml (1993) stated that all organizations are affected by the general components of the macro environment. They explained that each organization functions in a closer, more immediate task environment. The task environment comprises of the specific organizations with which the organization directly interacts.

External environment consists of social factors, political impacts; ecological considerations, technological uplifts and cultural changes. Organizations rarely have influence on the turbulence experienced in these factors. They therefore need to come up with strategies that will enable them to survive in event of turbulence in the environment. For success in the present world, one need to consider not only the internal environment of the company consisting of its resources and employees, but also needs to consider the external factors. These aspects cannot be stopped but one can adjust accordingly as per the changes in the economical, social or political pressures. These are the external factors which consist of; Opponents or competitors, the changing economic structure, impact of the society, financial arrangement, legal or political system, and the impact of the environment.

According to Bartol and Martin (1991), an organization is likely to be more successful if it operates as an open system that continually interacts with and receives feedback from the external environment. The organization and the environment in which it operates in are not closed systems because they influence each other. The organization thus cannot be successful if it is not in step with its environment.

The direction and stability of political factors defined are a major consideration for organizations in formulating business strategy (Pearce and Robinson, 1991). Political constraints are placed on firms through trade decisions, antitrust laws, tax programs, minimum wage legislation, pollution and pricing policies all aimed at protecting the employees, customers, the general public and the environment. Pearce and Robinson further

explain that these laws are most commonly restrictive and they tend to reduce the potential profits of firms. Other political actions are designed to benefit and protect firms. These are such as patent laws, government subsidies, and product research grants. Political stability or instability may greatly affect the performance of businesses. Political instability may be viewed as a threat to business whereas stability may be viewed as an opportunity for growth and excellence.

The economic environment is concerned with the nature and direction in which the firm operates. It is characterized by factors that affect supply, demand, growth, competition and profitability within the industry. Bateman and Ziethaml (1993) noted that the economic environment dramatically affects companies' ability to function effectively and influences their strategic choices. They state that interest and inflation rates affect the availability and cost of capital. In addition, unemployment rates affect labour availability. McCarthy et al (1996) added that the economic factors also interact with behavioural forces in influencing demand, and consequently the state of the economy. Further explanations state that the negative effects of poor general economic conditions may influence not only the demand for products but also other major business activities.

The socio-cultural environment is concerned with the society's attitudes and cultural values. When the organisation conducts its business it will need to do so in a way that respects and bears in mind the fact that the socio-cultural environment is characterised by different people and therefore it has to conduct its business in a way that respects and accommodates this environment. Failure to do so can result in bad publicity, losses and even the folding up of the business due to public pressure.

The social culture, according to Bartol and Martin (1991), is the element of the environment that includes attitudes, values, norms and beliefs. These in turn affects how people act and behave. Campbell et al (2002) pointed out that culture can affect consumer tastes and preferences, attitudes to work, attitudes to education and training, attitudes to corruption and ethics, attitudes to credit as well as attitude to the social role of business in society.

Ansoff and McDonnell (1990) describe technology as a driving force which frequently determines the strategic future of a firm. They say, failure to recognize in time impending technology substitution can result in a major loss of market share or cause a firm to leave an industry in which it enjoyed a profitable existence. Technology therefore can serve as a major

and powerful tool through which a firm can gain and maintain competitive pre-eminence. Technological forecasting can help to protect and improve profitability of firms in growing industries. Pearce and Robinson (1997) explain that the key to beneficial forecasting of technological advancement lies in accurately predicting future technological capabilities and their probable impacts.

Environmental factors include the weather and climate change. Changes in temperature can impact on many industries including electricity generations. With major climate changes occurring due to global warming and with greater environmental awareness this external factor is becoming a significant issue for firms to consider. The growing desire to protect the environment is having an impact on many industries and the general move towards more environmentally friendly products and processes is affecting demand patterns and creating business opportunities.

### **1.1.3 Power Industry in Kenya**

The Kenya Electricity Generating Company (KenGen) is one of the five power generating companies supplying electricity to the Kenya Power and lighting Company Ltd. (KPLC) in Kenya. From around mid-1997, power generation has been liberalized and hence we have a mix of both public and private entities in the sector. However at the moment, transmission and distribution of electricity is being undertaken by KPLC although Kenya Electricity transmission Company Ltd. (KETRACO) has been formed to take over the transmission from KPLC.

For many years, KenGen was considered a monopoly in Kenya in that it was the only organization responsible for producing electricity. Changes in environmental conditions such as political issues, competition, socio – cultural effects, economic stability in the country and advancement in technology have resulted in other organizations joining in and the demand for power increasing enormously. The environmental turbulence has posed various challenges such as increased competition, high cost of power production and international pressure on conservation of the environment for the benefit of the whole world.

This has led to the licensing of other firms to produce power and these firms are referred to as Independent Power Producers (IPP's). KenGen still dominates the power production market in Kenya with 77% of the sales. However the IPP's are slowly eating into KenGen's market share as their number increases and also their capacity increases.

A new development in this sector is the entrance of Geothermal Development Company (GDC). GDC is tasked with developing steam fields and selling geothermal energy for electricity generation. This will also change how the industry is being run due to the fact that the large investment required to produce power from steam has been transferred from KenGen to GDC and hence increasing the competition for steam buying.

All the power production and transmission companies are regulated by the government's ministry of energy through the Energy Regulatory Commission (ERC). ERC was established as an Energy Sector Regulator under the Energy Act, 2006 in July 2007. ERC is a single sector regulatory agency, with responsibility for economic and technical regulation of electric power, renewable energy, and downstream petroleum sub-sectors, including tariff setting and review, licensing, enforcement, dispute settlement and approval of power purchase and network service contracts.

The focus now is on renewable energy and that's why most of the financing and support is being given to geothermal development which has a potential of 3000MW in the Rift Valley region. As we move to greener energy lots and lots of investment is required to achieve the international standards and be able to conserve the environment. Wind energy is also part of the renewable energy strategy.

Several countries are investing in the energy sector and hence the upcoming IPP's and this is creating competition as well as diversification as each and every company tries to come up with strategies to be better and eat into the dominant market share that KenGen has in the industry.

#### **1.1.4 Kenya Electricity Generating Company**

The Kenya Electricity Generating Company, KenGen, has a history that dates back to 1954. In this year, The Kenya Power Company (KPC) was registered as a company and commissioned to construct the transmission line between Nairobi and Tororo in Uganda as well as to develop geothermal and other generating facilities in the country. The Nairobi - Tororo line was to transmit power generated at the Owen Falls Dam. Since its inception, the Kenya Power and Lighting Company (KPLC), to which it sold electricity in bulk at cost, managed the company, under a management contract. In January 1997, the management of

KPC was formally separated from KPLC as a direct result of the new reforms being undertaken in the energy sector and the entire economy.

The terms of restructuring of the power sector effectively resulted in a separation of functions, with KPC responsible for power generation and KPLC for Transmission and Distribution.

On October 2nd 1998, KPC was re-launched under a new name and corporate identity, The Kenya Electricity Generating Company Ltd.- KenGen was born. KenGen, at its launch hence took charge of all publicly owned power generating plants. A great deal of changes has occurred in the organization since its initiation, It has been listed in the Nairobi stock exchange and various transformational strategies have been carried out over the years.

KenGen is a limited liability company registered under the Company's Act and 70% owned by the Government of Kenya and 30% publicly owned. Its core Activity is electric power generation (KenGen Annual Report, 2003). Kenya Electricity Generating Company Limited, KenGen is the leading electric power generation company in Kenya, producing about 80 percent of electricity consumed in the country. The company utilises various sources to generate electricity ranging from hydro, geothermal, thermal and wind. Hydro is the leading source, with an installed capacity of 677.3MW, which is 72.3 per cent of the company's installed capacity.

KenGen has a workforce of over 1,500 staff located at different power plants in the country. With its wealth of experience, established corporate base and a clear vision, the company intends to maintain leadership in the liberalised electric energy sub-sector in Kenya and the Eastern Africa Region. The vision statement of KenGen states "To be the market leader in the provision of Reliable, Safe, Quality and Competitively priced electric energy in the Eastern Africa region."

Whilst the mission statement states:

"To efficiently generate competitively priced electric energy using state of the art technology, skilled and motivated human resource to ensure financial success. We shall achieve market leadership by undertaking least cost, environmentally friendly, capacity expansion. Consistent with our corporate culture, our core values will be adhered to in all our operations."



## **1.2 Statement of the Research Problem**

KenGen, like many other organizations, is constantly faced with the challenges of adapting to changes in environmental conditions. For such organizations to survive, it is important to formulate and implement strategies that will counter such turbulence. According to Huczynski and Buchanan (2007), organizational change is a strategic imperative. This means that radical shifts or Strategic Change are required in order to cope with the many and unpredictable changes in the wider social, economic, political and technological environment. Such strategies may include benchmarking, information technology, business process re-engineering, performance contracting, total quality management, etc.

For many years, KenGen was considered a monopoly in Kenya in that it was the only organization responsible for producing electricity. Political challenges in Kenya has had a great impact on the industry, the government being the major shareholder in KenGen slows down the way the company makes its decisions as there is a lot of bureaucracy involved in the decision making, some laws governing the company make it have a competitive disadvantage, for example, the public procurement act lengthens the procurement in a public institution as compared to the private institutions and thus they are at a higher advantage.

In the recent times, more companies have been licensed to undertake the production of power and their capacity keeps increasing by the day, this is a great deal for KenGen as its share holding in the industry is being eroded, this firms are at an advantage of looking for funding independently and hence can carry out their projects much faster and hence add more power to the grid. With these factors in mind, KenGen needs clear cut strategic responses that will enable it gain its shareholding back and stay on top on the industry.

Several studies (Nga'ng'a, 2004; Kang'oro , 1998; and Kombo, 1997) have been carried out in regards to strategy and the changing environmental conditions in Kenya. These studies have not touched on the power production industry and specifically what responses KenGen is undertaking in order to be able to deal with the changing macro environment. These studies have focused on different sectors of the economy which have different external environments and different turbulences to deal with and hence strategies that the study's have come up with are specific to those firms or firms that are in the same industry whilst different response strategies may be required for different industries. This study seeks to determine what response strategies KenGen has adopted to cope with challenges in the macro environmental

factors affecting the power industry in Kenya and also what factors are influencing the response strategies adopted by KenGen to cope with the environmental challenges.

### **1.3 Research Objectives**

The objectives of this study are:

- iii. To determine the response strategies KenGen has adopted to cope with changes in the macro environmental factors affecting the power industry in Kenya.
- iv. To establish the factors influencing the response strategies adopted by KenGen to cope with the environmental challenges.

### **1.4 Importance of the Study**

The findings of this study will be useful to management and staff of KenGen by providing insights on how the organization can adapt and respond to turbulence in environmental conditions. This will ensure that the organization adopts strategies that will give it strategic advantage as compared to its competitors. It will also enable KenGen to be able to change the strategic responses if what it is already employing is not being effective.

The Central government being the largest shareholder of the organization will be the biggest beneficiary; this is so because the knowledge can be applied in other parastatals in order to increase the competitiveness with a country full of private investments. The returns gained from the implementation of the strategic responses that will be identified will greatly be advantageous to the central government.

It will also contribute to existing academic literature in the field of Strategic Management. It will be a guide to further research in the field of Change management and Formulation and Implementation of Strategies in organizations. A basis of benchmarking with other institutions in other countries and what kind of research they have undertaken in the formulation and implementation of strategy and responses they have undertaken in the pursuit of excellence in the dynamic environment.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 The Concept of Strategy and Strategic Management**

Strategic management is the decision process that aligns the organisation's internal capability with the opportunities and threats it faces in its environment (Rowe et al. 1994). These internal capabilities may include integrating management, marketing, finance or accounting, operation, research and development, and computer information system to achieve organizational success. Strategic management, therefore, combines the activities of the various functional areas of a business to achieve organizational objectives.

The strategic management process is based on the belief that organization should continuously monitor internal and external factors so that timely change can be made as needed. To survive, all organization must be capable of astutely identifying and adapting to change. The strategic management process aimed at allowing organization to effectively adapt to change over the long run.

It is an ongoing process that assesses the business and the industries in which the company is involved; assesses its competitors and sets goals and strategies to meet all existing and potential competitors; and then reassesses each strategy annually or quarterly [i.e. regularly] to determine how it has been implemented and whether it has succeeded or needs replacement by a new strategy to meet changed circumstances, new technology, new competitors, a new economic environment., or a new social, financial, or political environment (Lamb,1984).

Strategy is the direction an organisation chooses to take in the future, to fulfil its obligations to its stakeholders (Johnson and Scholes, 2002; Porter, 1995). It occupies a central position in the determination of a firm's current and future intentions. The overriding need for strategy in a firm is to give the organisation a competitive edge through configuration of its resources and capabilities to match the environment

According to Mintzberg et al (1998), Strategy can be defined using five main definitions. They defined strategy as a plan, ploy, pattern, position or perspective. Chandler (1962) further states that strategy is the determination of the long term goals and objectives of an enterprise, and the adaptation of courses of action and the allocation of resources necessary for carrying out the goal. Strategy is therefore linked to the long term position of an organization. Without

strategy, decisions made today could have a negative impact on future results (Bruce and Langdon, 2000)

Strategy is the multidimensional concept embracing all critical activities of the firm, providing it with a sense of unity, direction and purpose as well as facilitating the necessary changes induced by the environment (Hax and Majluf, 1996). They argued that strategy is the means of establishing the organizational purpose in terms of its long term objectives, action programs and resource allocation; a response to external opportunities and threats, and internal weaknesses and strengths and a way to define managerial tasks with corporate businesses and functional perspectives.

Strategy as a concept has been studied in depth by many scholars. Campbell et al (2002) defined strategy simply as a vehicle through which a business can review past performance and, more importantly, determine future actions geared towards achieving and sustaining superior performance. They stated that it is undertaken in phases. These phases are Strategy development, Strategy Evaluation, Strategic Change and Implementation, and Strategy Learning. Strategic management is therefore a vital tool in all organizations today as it helps business managers in making strategic decisions that affect the long term objectives of the organizations.

Ansoff (1998) argues that strategy assists companies to cope with change, which is usually precipitated by environmental factors. Grant (2002) and Porter (1980) advance the view that strategy acts as the link between the firm and its environment. Thompson and Strickland (1998) are of the view that a good strategy needs to be 'well matched' to the external environment. As changes evolve in the environment, so must the strategy. Internally, strategy entails formulation and implementation of capabilities and resource strengths that are needed to sustain a competitive edge by the company. As a consequence of this, scanning the operating environment is crucial in order to detect new trends of paradigms, which may call for a change of strategy. Such developments could be in the economic, demographic, social, political or technological fields.

The essence of Strategy is to relate the organization to changes in the environment (Ansoff, 1987). Strategy therefore is a tool that helps the organization to align its activities to match turbulence in the environment. Organizations therefore need to develop response mechanisms to deal with the changes in the environment.

## **2.2 Macro-environment and its Challenges**

All Organizations are dependent on the environment. They depend on the environment for their inputs and outputs. Bateman and Zeithaml (1993) stated that all organizations are affected by the general components of the macro environment. They explained that each organization functions in a closer, more immediate task environment. The task environment comprises of the specific organizations with which the organization directly interacts.

External environment consists of social factors, political impacts; ecological considerations, technological uplifts and cultural changes. Organizations rarely have influence on the turbulence experienced in these factors. They therefore need to come up with strategies that will enable them to survive in event of turbulence in the environment. For success in the present world, one need to consider not only the internal environment of the company consisting of its resources and employees, but also needs to consider the external factors. These aspects cannot be stopped but one can adjust accordingly as per the changes in the economical, social or political pressures. These are the external factors which consist of; Opponents or competitors, the changing economic structure, impact of the society, financial arrangement, legal or political system, and the impact of the environment.

According to the systems view (Bartol and Martin, 1991), an organization is likely to be more successful if it operates as an open system that continually interacts with and receives feedback from the external environment. The organization and the environment in which it operates in are not closed systems because they influence each other. The organization thus cannot be successful if it is not in step with its environment. The simple fact that the organization interacts with the environment means that the organization is acting in an open system and will be both affected by the environment and also impact on the environment. This means that the organization draws its inputs such as human, financial and informational resources but to mention a few from the environment and distributes its products and services back to environment. This therefore leads us to the conclusion that the external environment definitely influences the conduct of the organization's business.

The direction and stability of political factors defined are a major consideration for organizations in formulating business strategy (Pearce and Robinson, 1991). Political constraints are placed on firms through trade decisions, antitrust laws, tax programs, minimum wage legislation, pollution and pricing policies all aimed at protecting the

employees, customers, the general public and the environment. Pearce and Robinson further explain that these laws are most commonly restrictive and they tend to reduce the potential profits of firms. Other political actions are designed to benefit and protect firms. These are such as patent laws, government subsidies, and product research grants. Political stability or instability may greatly affect the performance of businesses. Political instability may be viewed as a threat to business whereas stability may be viewed as an opportunity for growth and excellence.

Firms are greatly affected by political factors hence continuous assessment of government strategizing will help individual organizations to develop complementary plans that anticipate and optimize environmental opportunities. Management ability to act on the basis of changes in environmental factors is limited not only by its available resources and its perceptions of the need for change but by various legal and governmental restrictions (McCarthy et al, 1996). Organizations must therefore be aware of both laws and attitudes of governmental bodies if they are to avoid conflicts and for prosperity in their privileged status.

Economic conditions are impacted by the prevailing interest rates, taxation, inflation rates, stock market indexes, the trend of the Gross National Product (GNP), government spending, general demand, exchange rates and European and global economic factors and other related factor,. Improved economic conditions naturally stimulate an increased demand for products and services, thus creating additional opportunities for organizational growth. Depending on the different economic conditions the business conduct of an organisation can be influenced in a number of ways.

The economic environment is concerned with the nature and direction in which the firm operates. It is characterized by factors that affect supply, demand, growth, competition and profitability within the industry. Bateman and Ziethaml (1993) noted that the economic environment dramatically affects companies' ability to function effectively and influences their strategic choices. They state that interest and inflation rates affect the availability and cost of capital. In addition, unemployment rates affect labour availability.

McCarthy et al (1996) added that the economic factors also interact with behavioural forces in influencing demand, and consequently the state of the economy. Further explanations state that the negative effects of poor general economic conditions may influence not only the demand for products but also other major business activities. Effects of an economic slump

that do not seem to be currently influencing a firm may be felt further in the future and should be anticipated and planned for before they materialize. Management should therefore consider economic factors that affect demand for a product or service in the short run but also those that influence the firm's longer-run ability to satisfy their demand.

The socio-cultural environment is concerned with the society's attitudes and cultural values. When the organisation conducts its business it will need to do so in a way that respects and bears in mind the fact that the socio-cultural environment is characterised by different people and therefore it has to conduct its business in a way that respects and accommodates this environment. Failure to do so can result in bad publicity, losses and even the folding up of the business due to public pressure.

The social culture, according to Bartol and Martin (1991), is the element of the environment that includes attitudes, values, norms and beliefs. These in turn affects how people act and behave. Campbell et al (2002) pointed out that culture can affect consumer tastes and preferences, attitudes to work, attitudes to education and training, attitudes to corruption and ethics, attitudes to credit as well as attitude to the social role of business in society. The demographic element is an important element in the environment. Demography can be defined as the social science concerned with the charting of the size and structure of population of people. The size of the population will obviously be a determinant of the size of workforce and potential size of the markets.

The social structure is another critical element that impacts greatly onto organizations. It refers to the social groups organized in the population. Social structure can be defined by groupings such as age, sex, location and population density. The social structure affects peoples' ways of life, expectations, tastes and preferences and also their attitudes towards work. Since socio-demographic aspects are subject to change, it is important for management to monitor trends that might offer new opportunities or pose significant threats to the organizations. Pearce and Robinson (1997) further stated that social cultural factors that have an impact on an organizations' performance include population demographics, income distribution, social mobility, education beliefs, values, culture, attitude to work and leisure. In a nutshell, the organisation has to conduct its business in a way that is adaptable to socio-cultural changes and environments.

Ansoff and McDonnell (1990) describe technology as a driving force which frequently determines the strategic future of a firm. They say, failure to recognize in time impending technology substitution can result in a major loss of market share or cause a firm to leave an industry in which it enjoyed a profitable existence. Technology therefore can serve as a major and powerful tool through which a firm can gain and maintain competitive pre-eminence. Technological forecasting can help to protect and improve profitability of firms in growing industries. Pearce and Robinson (1997) explain that the key to beneficial forecasting of technological advancement lies in accurately predicting future technological capabilities and their probable impacts.

Environmental factors include the weather and climate change. Changes in temperature can impact on many industries including electricity generations. With major climate changes occurring due to global warming and with greater environmental awareness this external factor is becoming a significant issue for firms to consider. The growing desire to protect the environment is having an impact on many industries and the general move towards more environmentally friendly products and processes is affecting demand patterns and creating business opportunities. Kengen has experienced a shortage in the dams due to poor rainfall and now the main focus has been put on geothermal power development since its environmental friendly and it's readily available.

### **2.3 Factors Influencing the Kind of Responses Adopted**

In the late 1950's, the Russian-American engineer, Igor Ansoff, a founder of strategic management, argued that strategic planning was essential for firms operating in a complex, turbulent environment. At that time, sociologists dominated the research on strategic adaptation of non-profit organisations primarily and concluded that ad-hoc management was appropriate when the demand and the technology in the firm's markets evolved incrementally. He provided a practical framework for selecting a firm's expansion route in a growing market by reasoning that long-range planning was necessary to drive managerial decision making when the speed of change exceeded the firm's ability to respond.

Until the publication of Corporate Strategy (1965), companies had little guidance on how to plan for, or make decisions about, the future. Traditional methods of planning were based on an extended budgeting system which used the annual budget, projecting it a few years into the future. By its nature, this system paid little or no attention to strategic issues. With the advent



of greater competition, higher interest in acquisitions, mergers and diversification, and greater turbulence in the business environment, however, strategic issues could no longer be ignored. Ansoff felt that, in developing strategy, it was essential to systematically anticipate future environmental challenges to an organisation, and draw up appropriate strategic plans for responding to these challenges.

Ansoff was one of the first people to identify and define environmental turbulence and how it effects business decisions. Following up on the idea of environmental turbulence, Ansoff introduced his Strategic Success Hypothesis, which states that a firm’s performance is optimum when three conditions are met. These are: the aggressiveness of the firm’s strategic behaviour matches the turbulence of its environment; the responsiveness of the firm’s capability matches the aggressiveness of its strategy; and the components of the firm’s capability must be supportive of one another (Ansoff and McDonnell, 1990). This hypothesis is illustrated using the figure below.

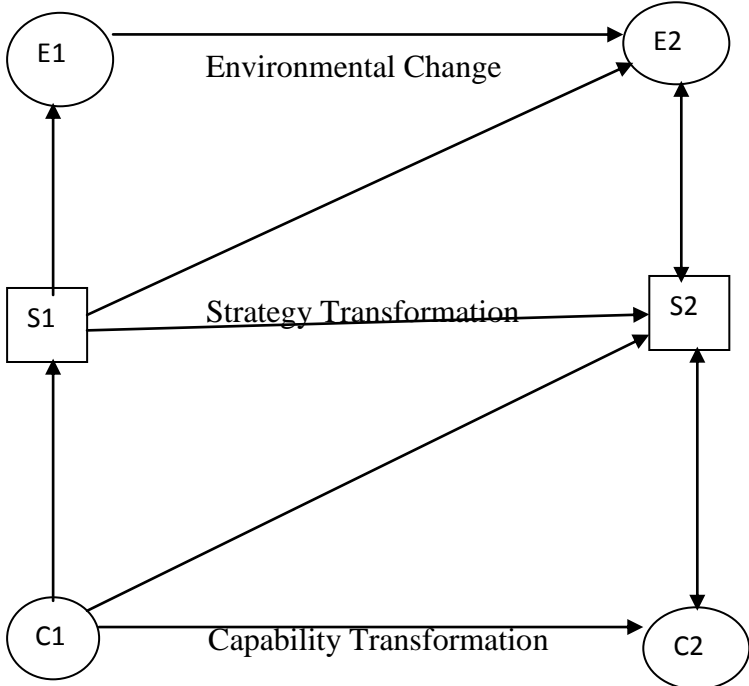


Fig 1: Managing Firms adaptation to Environment

By understanding the importance of aligning the ‘triplets’ of Ansoff’s equation (turbulence, aggressiveness, and responsiveness), any organization can quickly and easily evaluate where they are, where they are going, and what they need to do to get there. Ansoff’s identification of the success variables was confirmed by empirical research conducted by Leonidou,

Katsikeas, & Samiee (2002) supporting both the existence and the importance for firms to address the variables in the formulation of the firm's strategies as a determinant of performance and success factors.

Ansoff noted that for a firm's success the three variables that form the hypothesis must be fulfilled. For starters the aggressiveness of the firm's strategic behaviour must match the turbulence of its environment. If the turbulence of the environment is high then the firm should have a strategic behaviour that is very aggressive, a disparity of the aggressiveness and the turbulence will lead to the firm lagging behind in dealing with the turbulence, as well in an environment where the turbulence is not high then the firm's strategic behaviour needs not to be very aggressive.

The responsiveness of the firm's capabilities must match the aggressiveness of its strategy. A firm may have a very aggressive strategy to deal with the turbulence in the environment but does not have the capabilities to support this aggressive strategy, this makes the strategy to become unworkable, the firm's capability may include financial resources, human resources, skills, laws and regulations. All these factors must be able to support the strategy of the firm for it to succeed. A firm's management should carry out an evaluation of its capabilities in order to determine what is lacking and what needs to be added in order to be able to match the response strategy that they have adopted.

Lastly the components of the firm's capabilities must be supportive of one another. In order to succeed these capabilities cannot be in disparity, they must work together for them to achieve the common goal of the firm. A balance is required in the capabilities; these capabilities form the pillars of success for the strategy so if there is a weakness in any of these pillars then the strategy will not work at all.

In the Power industry, regulations is a factor in deciding which strategy the firm adopts to deal with the aggressiveness of the environment, the government being the major shareholder has the final stamp on which strategy is to be adopted, this puts a restriction to the firm and also slows down the implementation as compared to a private company that just needs to have a board meeting and the strategy is passed. There is a lot of lobbying that is done in order to persuade the government to adopt a certain strategy and this takes a lot of time and consumes a

lot of resources and hence making the firm to lag behind.

## **2.4 Organizational Responses to Environmental Turbulence**

If any organisation doesn't not take care of its environment then it's simply signing its death certificate and digging its own grave. The organisation is dependent on the environment, various tests should be carried out so very often in order to make sure that the organisation is taking advantage of the strengths and opportunities and shielding itself from the threats and weaknesses. It is therefore critical for any organization to ensure that they have strategies in place that will match the turbulence in the external environment.

There is need for organizations to align themselves to the changes in the external environment. This requires undertaking Strategic Responses that will help them to counter the environmental turbulence hence remain relevant in the industry. Various Strategies can be undertaken in the effort of aligning and realigning the organizations activities to such turbulence. According to Huczynski and Buchanan (2007), organizational change is a strategic imperative. This means that radical shifts or Strategic Change are required in order to cope with the many and unpredictable changes in the wider social, economic, political and technological environment.

### **2.4.1 Corporate Responses**

Benchmarking is defined as an organization's assessment of the performance and practices of other organizations and competitors in an effort to analyze and compare its own performance. Benchmarking is essential for organizations to raise their standards. (Huczynski and Buchanan (2007).The purpose of benchmarking according to Kanji and Asher (1996) is to identify and fill gaps in performance by putting in place the best practice, thereby establishing superior performance. Drucker (2007) explains that benchmarking is comparing one's performance with the best performance in the industry. He further states that benchmarking assumes that any business has to be competitive.

Benchmarking can be described in three distinct types namely internal benchmarking, competitive benchmarking and comparative benchmarking. Internal benchmarking is whereby an organization undertakes comparison between functions, departments or a similar organization as a means of improving performance. The aim is to optimize performance by removal of errors. Competitive benchmarking is a cross-comparison within one industry

sector aimed at establishing best practice through the identification of gaps within your own and competitors' performance. It can be done on product, functions, departments or the organization at large. Comparative benchmarking is the comparison across all business sectors aimed at establishing best practice in all areas of operation (Kanji and Asher, 1996).

Robins and Coulter (2005) stated that the basic idea behind benchmarking is that managers can improve performance by analyzing and copying the methods of the leaders in various fields. Benchmarking helps organizations to focus on their mission and vision and also identify measures or targets for key business processes. In addition, benchmarking helps organizations to move away from being introspective towards being externally focused and close to their markets.

Alliances are one of the response strategies that would greatly put an organization at a competitive edge. A strategic alliance is An agreement between two or more individuals or entities stating that the involved parties will act in a certain way in order to achieve a common goal. Strategic alliances usually make sense when the parties involved have complementary strengths. These alliances may be used to reduce competition in the business or even to support both companies in various means either being monetary or even product wise. Alliances may bring economies of scale in production and/or marketing, allies can share and/or transfer technical and manufacturing expertise, access to markets previously blocked by government barriers among other benefits.

Performance Contracting is a major part in achieving set objectives of the company. A performance contract is a formal and legally enforceable agreement between an employer and employees defining the performance expectations to be delivered by the employees as well as the time in which they are to be delivered. The use of Performance Contracts has been acclaimed as an effective and promising means of improving the performance of public enterprises as well as government departments. Essentially, In government institutions a Performance Contract is an agreement between a government and a public agency which establishes general goals for the agency, sets targets for measuring performance and provides incentives for achieving these targets. They include a variety of incentive-based mechanisms for controlling public agencies—controlling the outcome rather than the process.

The success of Performance Contracts in such diverse countries as France, Pakistan, South Korea, Malaysia, India, and Kenya has sparked a great deal of interest in this policy around

the world. A large number of governments and international organizations are currently implementing policies using this method to improve the performance of public enterprises in their countries. Performance Contracts represent a state-of-the-art tool for improving public sector performance. They are now considered an essential tool for enhancing good governance and accountability for results in the public sector.

Performance contracting gives an organization a competitive edge over other organizations since it's a binding commitment. The parties involved are committed to certain courses that yield positive results in the organization. It involves negotiating the targets based on the strategic plan of the organization. Signing the contract indicates commitment by the parties to implement the strategic plan.

#### **2.4.2 Business Responses**

Information Technology is the world mover today, IT hardware and systems keep evolving after every few months, new information technologies with enhanced connectivity capabilities can trigger the transformation of industry structures and change the sources of competitive advantage. Such technological changes may trigger strategic responses that seek to capture advantages of technological leadership. Those who are among the first to respond obtain competitive benefits of volume and experience that may not accrue to those who follow.

Strategic responses may also reflect efforts to minimize dependence on other firms that seize the opportunities afforded by technological innovation. For example, firms absorb external dependence by expanding resources, or they negotiate external dependence by establishing cooperative relations with other firms.

Information technology has radically changed the way organization members communicate. It has significantly improved manager's ability to monitor individual or team performance, it has allowed employees to have more complete information and make faster decisions and it has provided employees with more opportunities to collaborate and share information. According to Robbins and Coulter, IT has made it possible for people in organizations to be fully accessible, any time, regardless of where they are.

Total Quality Management is a set of management practices throughout the organization, geared to ensure the organization consistently meets or exceeds customer requirements. TQM

places strong focus on process measurement and controls as means of continuous improvement. TQM is described as a continuous process of improvement for individuals, groups of people and the whole organization (Kanji and Asher, 1996). This approach was inspired by the Japanese and was used to improve organizational performance and effectiveness. Mullins (2007) defined TQM as a way of life for an organization as a whole, committed to total customer satisfaction through a continuous process of improvement, and the contribution and involvement of people.

The Chartered institute of Management define TQM as a way of managing which gives everyone in the organization responsibility for delivering quality to the final customer; quality being defined as 'fitness for purpose' or as 'delighting the customer'. TQM views each task in the organization as fundamentally a process which is in a customer/supplier relationship with the next process. The aim at each stage is to define and meet the customer's requirements with the aim of maximising the satisfaction of the final consumer at the lowest possible cost.

TQM is a management philosophy that seeks to integrate all organizational functions (marketing, finance, design, engineering, and production, customer service, etc.) to focus on meeting customer needs and organizational objectives. TQM views an organization as a collection of processes. It maintains that organizations must strive to continuously improve these processes by incorporating the knowledge and experiences of workers. The simple objective of TQM is "Do the right things, right the first time, every time".

Research and Development is another key in dealing with the turbulence in the macro-environment. Continuous research brings new ideas to the organization that gives it a competitive edge and hence bringing success to the organization. New products or enhancements to the products or the change in production are all benefits that come with research and development. The organization will always be ahead of its competitors as well as being able to meet the customer needs satisfactorily.

### **2.4.3 Operational Responses**

Organizational culture is the personality of the organization. Culture is comprised of the assumptions, values, norms and tangible signs (artifacts) of organization members and their behaviors. The concept of culture is particularly important when attempting to manage organization-wide change. Practitioners are coming to realize that, despite the best-laid plans,

organizational change must include not only changing structures and processes, but also changing the corporate culture as well.

Cultures within any organization are referred to as organizational culture. This depicts how things are done around any given organization. Mullins (2007) sees organization culture as a collection of traditional values, policies, beliefs and attitudes that constitute a pervasive context for everything we do and think in an organization. Organizational culture reflects the underlying assumptions about the way work is performed, what is acceptable and not acceptable, and what behaviour and actions are encouraged and discouraged within the organization. The culture of an organization is often likened to the personality of an individual. It is a system of management authority. It helps employees to identify themselves with their organization and accept their rules, internalizes the organization values and motivates them to achieve the organizations objectives.

Though an organizational culture is one that is difficult to change, it is possible to change it with time. It is important for any organization to develop its culture as it influences the way people behave. Positive organization culture yield proper communication to each other and also to outsiders. It also results in other factors relevant for survival in a turbulent environment such as teamwork, outcome orientation, innovation and risk taking, attention to detail and also people orientation.

There's been a great deal of literature generated over the past decade about the concept of organizational culture -- particularly in regard to learning how to change organizational culture. Organizational change efforts are rumored to fail the vast majority of the time. Usually, this failure is credited to lack of understanding about the strong role of culture and the role it plays in organizations. That's one of the reasons that many strategic planners now place as much emphasis on identifying strategic values as they do mission and vision. Business process reengineering (often referred to by the acronym BPR) is the main way in which organizations become more efficient and modernize. Business process reengineering transforms an organization in ways that directly affect performance.

Mullins (2007) defines BPR as the fundamental rethinking of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost quality, service and speed. He says that the approach can take a completely fresh start to

organizational redesign ignoring past history and the present structures. BPR is a management approach aiming at improvements by means of elevating efficiency and effectiveness of the processes that exist within and across organizations. The key to BPR is for organizations to look at their business processes from a "clean slate" perspective and determine how they can best construct these processes to improve how they conduct business.

The two cornerstones of any organization are the people and the processes. If individuals are motivated and working hard, yet the business processes are cumbersome and non-essential activities remain, organizational performance will be poor. Business Process Reengineering is the key to transforming how people work. What appear to be minor changes in processes can have dramatic effects on cash flow, service delivery and customer satisfaction. Even the act of documenting business processes alone will typically improve organizational efficiency by 10%.



## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Research Design**

The research was conducted through a case study method. A case study is one of several ways of doing research whether it is social science related or even socially related. The study requires an in-depth investigation and hence it is only appropriate to use a case study. Rather than using samples and following a rigid protocol to examine limited number of variables, a case study method was involved an in-depth, longitudinal examination of a single instance or event and hence providing a systematic way of looking at events, collecting data, analyzing information, and reporting the results. As a result the researcher gained a sharpened understanding of why the instance happened as it did, and what might have become important to look at more extensively in future research.

The aim was to equip the researcher with in-depth information on how KenGen as an organization responds to turbulence in the macro-environmental conditions as well as get an insight what strategies the power production sector as a whole was applying in dealing with the external turbulence. The case study was an appropriate research design as it undertook in-depth analysis of KENGEN as a unit hence facilitated intensive study of the same.

### **3.2 Data Collection**

Primary data was collected for the study. The primary data was gathered using the interview method. The respondents were randomly selected from top and middle management positions of KENGEN. The selection of the top and middle management positions was due to the fact that the research involved strategy which mainly occurred at this level before it trickles down for implementation and then feedback goes back to the management for action.

A sample of six persons from the top and middle management were interviewed in order to gain an insight into what response strategies that this level of management was applying in order to deal with the changing macro-environmental conditions. The interview was prior arranged with the managers to ensure their availability.

### **3.3 Data Analysis**

Data analysis is a practice in which raw data is ordered and organized so that useful information can be extracted from it. The process of organizing and thinking about data is key to understanding what the data does and does not contain. Summarizing data is often critical

to supporting arguments made with that data, as is presenting the data in a clear and understandable way.

The content analysis technique was used to analyse the data. The findings emerging from the analysis were used to compile this report. Content analysis is defined as a technique for making inferences by systematically and objectively identifying specified characteristics of messages and using the same approach to related trends (Nachmias and Nachmias, 1996). The qualitative method can be used to uncover and understand what lies behind the phenomena under study (Nyororo, 2006).

## CHAPTER FOUR: DATA ANALYSIS, INTERPRETATIONS AND DISCUSSIONS.

### 4.1 Introduction

This chapter documents and presents the findings, discussions and interpretation on the responses adopted by Kenya Electricity Generating Company to changing macro environmental conditions in Kenya. The study collected qualitative data. In this chapter the data is analyzed, interpreted and discussed. The chapter is organized into three sections according to the study

### 4.2 Demographic Information

**Table 4.1 Distribution of Respondents position Held in the company and Department**

<b>Distribution</b>		
<b>Position Held</b>	<b>Number</b>	<b>Department</b>
ICT Manager	1	ICT
Projects Manager	1	Operations
Human Resource Manager	1	Human Resources
Finance and Commercial Director	1	Finance and Commercial
Property and Legal Manager	1	Property and Legal Department
Regulatory Manager	1	Regulatory
<b>Total</b>	<b>6</b>	

Table 4.1 shows the position held by the respondents under study and their respective departments in the company. It was established that the respondents comprised ICT manager, Projects Manager, Human Resource Manager, Finance and Commercial Director, Property and Legal Manager, and Regulatory Manager; their departments were, ICT, Operations, Human Resources, Finance and Commercial, Property and Legal Department and Regulatory department respectively.

### **4.3 Response Strategies**

This section is organized according to the response strategies adopted by Kengen. It further shows the macro environmental factors that were affecting the operations of Kengen and how they affected the operations. Finally the section covers the strategies adopted by Kengen to cope with the changes in the macro environmental factors.

#### **4.3.1 Political changes**

The respondents concurred that there is great Political interference from the government. This happens mostly since the CEO is appointed by the president and change of regime after every five years causes almost a definite change of the CEO. The respondents revealed that this causes confusion and non-consistency in implementation of strategy due to different strategies by different CEOs. The company is forced to adopt new managerial styles even before the company has adopted or settled on the previous styles. The political atmosphere especially the post election violence also affected the company especially the employees who were caught up in all these skirmishes. Some employees were forced to move from their area of residence and this affected their duties and performance at work.

The respondents in the study observed that there is nothing much that can be done to the political changes except for the company to have laid down guide lines and binding plans to be followed by the new CEOs being appointed. In this case, the respondents revealed that KenGen has a permanent guideline vision and mission which helps guiding the CEO who comes to the organization through political appointment. This guides them to know where the company is going since everyone has a different strategy to arrive at a mission or vision; this is the only way it can safeguard itself. The respondents observed that KenGen takes measures to take care of its employees to make sure they are protected and work in a comfortable and safe place without any interference.

The findings that political factors affected the operations of KenGen were similar to McCarthy et al (1996) who argued that firms are greatly affected by political factors hence continuous assessment of government strategizing will help individual organizations to develop complementary plans that anticipate and optimize environmental opportunities. Organizations must therefore be aware of both laws and attitudes of governmental bodies if they are to avoid conflicts and for prosperity in their privileged status. According to Pearce and Robinson (1991) political constraints are placed on firms through trade decisions,

antitrust laws, tax programs, minimum wage legislation, pollution and pricing policies all aimed at protecting the employees, customers, the general public and the environment. Pearce and Robinson further explain that these laws are most commonly restrictive and they tend to reduce the potential profits of firms. Other political actions are designed to benefit and protect firms. These are such as patent laws, government subsidies, and product research grants. McCarthy et al (1996) concludes that organizations must therefore be aware of both laws and attitudes of governmental bodies if they are to avoid conflicts and for prosperity in their privileged status.

#### **4.3.2 Economic Changes**

Recently the economic situation in the country has been harsh on companies and KenGen has not been spared as well. According to majority of the respondents said that high taxes and the upward trend of the inflation rate is bad for doing business and so with KenGen; this also makes borrowing internally very difficult for the company. The respondents further stated that the value for money, the appreciating dollar is bad for the Kenyan economy as well as KenGen since the company pays their loans in dollars. The company have to rely mostly on loans due to the harsh economy and since the government does not have money to sponsor all the projects KenGen is undertaking.

On the other hand the respondents argued that the high taxes eats heavily on the company's earnings and this have also made the cost of doing business in Kenya high so and this is an economic challenge to KenGen as well. The 2007/2008 post election violence brought the economy down tread of the country this had a major effect on the whole economy not to mention the inflation rate, suppliers conflict. It was also revealed that an upward growth of KenGen economy means there is more need for more energy hence the company is putting more investments to meet the demand which is also a challenge.

In order to cope with the economic changes, KenGen has come up with various strategies to ensure that their running is smooth. The respondents revealed that the organization has executed more investment and especially in geothermal energy which will make sure that the company is able to earn and compete successfully with its competitors, the IPP's. More investments would not only increase the power production to meet the demand but it would also improve the company's earnings. The respondents observed that due to lack of funds the company has embarked on external funding which has been sort for purpose of projects

execution. As seen earlier, the government does not have funds to sponsor all the projects by KenGen and therefore the company has to rely on loans and external funding. In general, KenGen tries all it can to shield itself from economical challenges being experienced and also for the company to remain competitive.

The study revealed that economic conditions affected the operations of Kengen. This is in line with what Bateman and Ziethaml (1993) argued that, economic factors are characterized by factors that affect supply, demand, growth, competition and profitability within the industry. They noted that the economic environment dramatically affects companies' ability to function effectively and influences their strategic choices. McCarthy et al (1996) observes that the economic factors also interact with behavioural forces in influencing demand, and consequently the state of the economy. Further explanations state that the negative effects of poor general economic conditions may influence not only the demand for products but also other major business activities. He concludes that managers should therefore consider economic factors that affect demand for a product or service in the short run but also those that influence the firm's longer-run ability to satisfy their demand.

#### **4.3.3 Social/cultural changes**

Every organization has its culture; this culture affects the way in which people work in the company. The respondents stated that new people always come into the company and go and so the culture needs to change since the parastatal culture may kill the company. However, change is one major hindrance as people do not like change hence this slows down the implementation of strategy. The respondents revealed that KenGen has its parastatal culture but unfortunately there is a sluggish culture since it's a parastatal; through its changing it makes working and achieving things a bit slower as compared to private institutions.

The respondents also established that there is a culture where people don't work effectively, that is, they think they can just sit and get paid, though on the other hand it was revealed that the majority of the population is working well. Change is the only constant in the world and each organisation has its culture and since KenGen is transforming from a good to a great company change has always occurred but resistance to change evident hence slowing down this process.

To cope with the social and cultural changes in the organization, KenGen has come up with strategies to assist the staff to cope with changes. Majority of the respondents stated that the

company is undertaking change management through the human resource department. It was revealed that there has been set up a change management section which is working to make sure the staff are able to cope and accommodate the changes. It was also revealed that the organization is implementing the g2g transformation strategy.

The research observed that social cultural factors were affecting the operations of KenGen. The social culture, according to Bartol and Martin (1991) is the element of the environment that includes attitudes, values, norms and beliefs. These in turn affects how people act and behave. Campbell et al (2002) pointed out that culture can affect consumer tastes and preferences, attitudes to work, attitudes to education and training, attitudes to corruption and ethics, attitudes to credit as well as attitude to the social role of business in society. Pearce and Robinson (1997) further observe that social cultural factors that have an impact on an organizations' performance include population demographics, income distribution, social mobility, education beliefs, values, culture, attitude to work and leisure. They felt that organisations have to conduct their businesses in a way that was adaptable to socio-cultural changes and environments.

#### **4.3.4 Technological Changes**

The ICT environment is changing very frequently all over the world and Kenya in particular. In KenGen, the technological changes has had a positive influence as the company is now operating a paperless office and the whole organisation is being run under an enterprise resource planning software. The respondents revealed that the company has changed machines, made software changes and it has tried to adapt to the changes and it is evident that they have been able to benefit KenGen by being able to cut cost and work efficiently. Then changes have been witnessed in the procurement department, in the office work as well as in their communication and it have been an advantage to the company. Everything is going electronic and for KenGen to survive it has to cope with the changes however the respondents revealed that those changes are too frequent for an organisation like this and these means that the company may take a while to adopt new technology.

This challenge makes the company to be left lagging behind in terms of technology and hence their competitors are ahead. It was also established that it's sometimes difficult to cope with the speedy technological changes due to the laws that govern the company, that is, the public

procurement act and this was said to be a challenge in trying to adopt the technological changes.

KenGen has employed world class IT technology in its day to day operations; this has been done to enhance work efficiency in the organization. The respondents stated that the company has adopted state of the art technology, that is, use of SAP, Intranet, and websites which is easier to upgrade instead of changing every time. There is frequent upgrade of software and hardware. It was also found out that the company always plan ahead so as to cope up with the changes. Further, it was established that KenGen try to keep up with the changing technology after every one year and always do software audit every six months to determine exactly what should be changed. However, some respondents revealed that the company have always tried to move with the technology as fast as it can though it is experiencing difficulties especially due to the public procurement act.

The researcher found that technology affected how KenGen operated. These findings are similar to what Ansoff and McDonnell (1990) describe of technology; as a driving force which frequently determines the strategic future of a firm. Technology therefore can serve as a major and powerful tool through which a firm can gain and maintain competitive pre-eminence. Pearce and Robinson (1997) said that technological forecasting can help to protect and improve profitability of firms in growing industries. They explained that the key to beneficial forecasting of technological advancement lies in accurately predicting future technological capabilities and their probable impacts.

#### **4.3.5 Legal Changes**

Legal changes have also been experienced in the organization. Majority of the respondents felt that public procurement act is a major constraint to implementation of projects as it takes so long to get the supplies as the process of procurement is too long. It was revealed that the public procurement act makes the company's supplies to take three to four times longer than the time it takes for private organisation to get their supplies. Further the respondents established that the regulations in Kenya solely depend on the parliamentarians who take long to even pass anything; the slow passage of regulations means KenGen cannot be able to work competitively with the IPP's.

The company is unable to compete with companies whose procurement process or procedures are simple and faster. The study also found out that sometimes the employees use pirated



software in the organization which could cause some legal challenges especially with the copy right law being emphasised in Kenya and this would cost the company in terms of legal fees and costs incurred in cases.

The study earlier observed that one of the major legal challenges at KenGen is the public procurement act which slows down the procurement process. To cope with this, the company always plans ahead instead of waiting for emergencies since the process of procuring is long. According to majority of the respondents, planning ahead is the only way to beat the public procurement act. This has helped KenGen remain competitive and also do proper contracts to avoid legal tussles with suppliers. However the company is putting pressure to the ERC to be able to change some regulations. To avoid use of pirated software, KenGen restrict the installation of software to the ICT support team so that the company is not caught on the wrong side of the law.

#### **4.3.6 Ecological Changes**

KenGen utilises various sources to generate electricity ranging from hydro, geothermal, thermal and wind, therefore it's evident that any ecological changes would greatly affect the company in its mission to generate power. The respondents revealed that the changing weather patterns in the world have also affected Kenya. In the recent past the country has experienced repeat droughts and shortage of rainfall led to the reduction of water levels in the power generating dams and hydro power being the leading source of electricity, the company has been unable to produce enough electricity. The respondents also stated that the cutting down of trees in our forests has affected the water levels hence the company produced less energy.

Due to these changes and challenges the company has been forced to procure or hire emergency power which is more expensive and hence the cost of power has gone up. The low water levels in the dams have led to high cost of power production through thermal sources. The respondents further established that these changes have a big impact on KenGen whereby the company's earnings have reduced significantly.

Ecological changes have affected KenGen to a great extent in its mission to generate power and to meet the current demand. To counter this challenge the respondents observed that more investments are being carried out by the company and especially in green energy, that is, geothermal and also wind energy which are more reliable than hydro power and mostly not

affected by ecological changes. KenGen has greatly focussed on geothermal power production since the effect of drought does not affect energy production and it would also help to meet the high demand. However, it was revealed that it's more expensive to set up geothermal power production but it's cheap in the long run, easier to maintain and more reliable.

The study observed that ecological/ environmental changes affected generation of power for KenGen. According to Pearce and Robinson (1997) changes in temperature can impact on many industries including electricity generations. With major climate changes occurring due to global warming and with greater environmental awareness this external factor is becoming a significant issue for firms to consider. The growing desire to protect the environment is having an impact on many industries and the general move towards more environmentally friendly products and processes is affecting demand patterns and creating business opportunities.

#### **4.4 Factors Influencing the Response Strategies**

##### **4.4.1 Political changes**

The study observed that the government is the major constraint of response strategies adopted by KenGen to cope with the environmental changes for example, change in power leads to a change of the CEO. This is because the government has the major shareholding in the company and therefore they tend to have the final say on the company. In order to guard the company from the frequent change of CEO`s and for the welfare of its employees, the company has a permanent vision, mission and core values that guides them since the company have no power to dictate which CEO will stays. The respondents established that this is the only way to protect KenGen from the political changes happening in the country. However, the respondents also argued that though the vision and mission are constant, the strategy to implement them may differ from CEO to CEO; this is also a constraint to the company.

##### **4.4.2 Economic Changes**

The economic situation is determined by several factors but most of which are beyond the company's control and according to the respondents the government needs to provide incentives since it is a major constraint. It was also revealed that for KenGen to be able to achieve its mission it must continue to invest in order to be able to be successful and in this

case the company has borrowed loans to ensure that they continue with investments. The company have also been unable to meet the demand and reliability. The hydro power has failed the company and this has been a challenge since KenGen has a vision to be the market leader in the provision of reliable, safe, quality and competitive priced energy. The respondents also established that economic changes generally tends to affect all sectors of the economy and hence the only way not to be affected is to make sure the company has more sources of power. That's why the company is heavily investing on geothermal power generation. It was also revealed that for the company to shield itself from this factors it should also take advantage of the chances the economy gives especially growth.

#### **4.4.3 Social/cultural Changes**

The study observed that for any organisation to flourish it has to involve its people and for that to happen the company have to empower them to understand and be on the same page in terms of strategy and implementation. The respondents argued that the mechanism used has been adopted since it has been proven by scholar that it works. These mechanisms have been adopted as the company needs to beat their competitors and since KenGen is no longer the sole producer. However, it was also revealed that culture is very hard to change and time is a big constraint in this one as it takes a long time to change. For competitive advantage the company needs to have a culture of private business but the biggest challenge is that culture is very difficult to change. Therefore, the only way to survive social/cultural change is to change with it; the need to succeed is the major influencing factor and to have a successful company the respondents established that there have to be the right people with the right culture.

#### **4.4.4 Technological Changes**

Technology is the only way to succeed; no company succeeds without ICT, this was according to majority of the respondents. The global pressures to change with the trends are the major influencing factors to the company. KenGen is constricted by the public procurement act and this is the reason why they do technological changes after every one year. The respondents revealed that there is nothing KenGen can do to change the public procurement act except to put on pressure to the government. The government is a major constraint in this as it makes the laws. The company is also unable to effect technological changes due to cost cutting. The cost of running business is high and the company have to beat competition as well and therefore KenGen main aim is to earn more and gain back the

market share it have lost. It was also revealed that SAP is able to run the whole organisation and hence the does not need many different systems and this helps to save on cost.

#### **4.4.5 Legal Changes**

There are major constraints in trying to adopt response strategies on legal changes. This is because the company have absolutely no influence to change the public procurement act by the parliamentarians unless through ERC; the government is a major constraint to the change of public procurement act. Because there is nothing else to do to change the law, the respondents revealed that KenGen have come up with preventive measures to ensure that the company is able to do proper contracting to settle the supplier conflict as in the case of public procurement act. In general, the government is the biggest constraint due to the changes in law.

#### **4.4.6 Ecological Changes**

Due to ecological changes, the respondents stated that KenGen has put more focus on green energy so as to prevent the effects of drought. The biggest constraints is competition as well as funding since geothermal power is very expensive to setup. Green energy is more reliable, efficient and in the long run it's cheaper for the customers. The global community is also a major influencing factor as they are focusing on green energy and even giving incentives for it. The respondents argued that for business continuity and success of the company needs reliable energy and the international organisations focus and they are supporting in development of green energy is also an influencing factor. The company is adopting this mechanism also to be able to meet the high demand and also to remain competitive.

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

### **5.1: Introduction**

The general objective of this study was to investigate the responses by Kenya Electricity Generating Company to changing macro environmental conditions in Kenya.

### **5.2 Summary of Findings**

#### **5.2.1 Response Strategies**

From the findings of the study, all the respondents revealed that the company was being affected by macro environmental factors such as political changes, economic changes, technological changes, legal changes, ecological changes, social and cultural changes. The response strategies adopted by kenGen towards each of this changes are discussed.

The study looked into the strategies that had been adopted to cope with changes in the macro environmental factors. From the study, it was revealed that nothing much could be done to the political changes except for the company to have laid down guide lines and binding plans to be followed by the new CEOs being appointed. It was also revealed that KenGen took measures to take care of its employees to make sure they are protected and work in a comfortable and safe place without any interference.

The researcher found out that in order to cope with the economic changes, KenGen had come up with more investment and especially in geothermal energy which would make sure that the company was able to earn and compete successfully with its competitors, the IPP's. This would also improve the company's earnings. The company had embarked on external funding for projects execution.

From the study, it was felt that for KenGen to cope with the social and cultural changes, it had undertaken change management through the human resource department. It was revealed that KenGen had set up a change management section which was working to make sure the staffs were able to cope and accommodate the changes. It was also revealed that the organization is implementing the g2g transformation strategy.

The study found out that KenGen had employed world class IT technology in its day to day operations to enhance work efficiency. The company had adopted the use of SAP, Intranet,

and websites which was easier to upgrade instead of changing every time. It was also found out that the company always planned ahead to cope up with the changes. Further, it was established that KenGen was keeping up with the changing technology after every one year and always did software audit every six months to determine exactly what should be changed.

On legal changes, the study revealed that the company was planning ahead instead of waiting for emergencies since the process of procuring is long. This was the only way to beat the public procurement act. This had helped KenGen remain competitive and also do proper contracts to avoid legal tussles with suppliers. However the company was putting pressure to the ERC to be able to change some regulations. To avoid use of pirated software, KenGen restricted the installation of software to the ICT support team.

The study observed that, for KenGen to cope with ecological changes, more investments were being carried out by the company and especially in green energy, that is, geothermal and also wind energy which are more reliable than hydro power and mostly not affected by ecological changes. KenGen had greatly focussed on geothermal power production to meet the high demand. However, it was revealed that it's more expensive to set up geothermal power production but it's cheap in the long run, easier to maintain and more reliable.

### **5.2.2 Factors influencing the response strategies.**

From the study, it was revealed that the government was the major constraint of response strategies adopted by KenGen. This was through change of power leading to change of the CEO since the government is the major shareholding in the company. To guard the company from the frequent change of CEO's and for the welfare of its employees, the company had a permanent vision, mission and core values that guided them.

From the study, the economic situation was out of control for the company and according to the respondents the government needed to provide incentives required since it is a major constraint. To shield itself from adverse economic conditions, the company should also take advantage of the chances the economy gives especially growth.

It came out clear from the study that the major factor influencing the response strategies in relation to social cultural factors was time. This meant that for the company to survive social/cultural change it had to change with it. The need to succeed is the major influencing

factor and to have a successful company the respondents established that there have to be the right people with the right culture.

The study observed the factors influencing response strategies in relation to technological change. From the study, global pressures to change with the trends were major factors influencing technology change in the company. The Public Procurement Act was also influencing technological change in terms of procurement. The company was also unable to effect technological changes due to cost cutting. The cost of running business was high and the company had to beat competition as well.

The study felt that the influencing factors when trying to adopt response strategies on legal changes. The study established the Public Procurement Act as a major factor. The government was identified as the biggest constraint due to the changes in law as only parliament can be able to change the act of parliament.

The study revealed that competition as well as funding was the major factors influencing adoption of response strategies. This was due to the cost involved in production of green energy which is more reliable, efficient and in the long run cheaper for the customers. The global community was also identified as a major influencing factor as they are focusing on green energy and even giving incentives for it.

### **5.3 Conclusions**

The purpose of the study was to investigate the responses by Kenya Electricity Generating Company to changing macro environmental conditions in Kenya. Based on the research findings the following conclusions are made.

The study concludes that a company's operating environment is affected by macro environmental factors such as political changes, economic changes, technological changes, legal changes, ecological changes, social and cultural changes. The research study also concludes that politics were affecting the operations of KenGen as a result of political appointments after change of regime. The study also concludes that the political instability for instance the post election violence has a negative influence in the operations of a company. The researcher concludes that high taxes results to decreased company earnings while high inflation rates affect a company's rate of doing business. It can also be concluded that adverse economic conditions make borrowing internally very difficult for a company. The

study further concludes that the 'parastatal culture' has led to a sluggish culture in the company. In addition, technological changes had positively influence the operations of the company.

The study concludes that Public Procurement Act was a constraint to the effective implementation of projects as it took long to get the supplies. This largely exposed KenGen to competition with IPP's. The changing weather patterns and the cutting down of trees has an impact on the price of power. This is as a result of diversifying to other sources of energy. The study concludes that additional investment and especially in geothermal energy would make the company become more competitive and cushion itself against harsh economic conditions.

The researcher concludes that effecting change management through the human resource department could help cope with the social cultural factors affecting the company. The study also concludes that the company had adopted world class IT technology in its day to day operations to enhance work efficiency and also be able to compete with the private companys. The study also concludes that the government is the major constraint to response strategies adopted by KenGen to cope with the environmental changes. Other factors included competition as well as funding.

#### **5.4 Limitations of the study**

The major limitation was time. This was due to the fact that this study was undertaken while other duties of employment took place. On this account, the study may have taken longer than the expected time to finish, though the work was completed within the time that the university accords for the course.

It was appreciated that respondents' bias may have been an inevitable part of the study as the employees were supposed to give judgement on the institution they work for. This is because they were supposed to give views on what macro environmental factors are affecting the organization and what responses the company is taking to deal with them. The CEO may not find political interference as a factor while the rest of the employees may feel like its a major factor influencing.

There was a constraint of availability of the key respondents that is the directors through human engagements such as leave of absence, training or the field of work. Nonetheless, the



respondent rate was high enough that these limitations had marginal effects on the overall findings of the study.

### **5.5 Recommendations for Further Research**

Since this study adopted the interview method as the primary data collection method, the researcher suggests that a study be carried out using other methods of primary and secondary data collection to see whether there will be difference in the results. These methods could include use of questionnaires, focus groups, reports, publications or internet sources. This will enhance comparison.

This study was carried out in a company from the energy sector. Future studies should be carried out in companies from other sectors for comparison purposes. This will enable the researcher be able to know if the macro environmental factors in Kenya affect different companies and in different sectors of the economy in the same way or what difference exists as well as what are their response strategies and what factors are influencing the response strategies adopted.

### **5.6 Recommendations for policy and practice**

To shield itself from adverse economic conditions, the company should take advantage of the chances the economy gives especially in its growth phase. This could be through KenGen taking advantage of the improvement in the economy through acquisition of favourable economic policies that have been implemented by the government. This could enable the company to access capital with low interest for additional investments especially in geothermal energy which would make sure that the company was able to earn and compete successfully with its competitors, the IPP's. This would also improve the company's earnings.

KenGen can make use of the various cultures in Kenya as a way to determine innovations that they can be helpful to their business. Further, KenGen may change its organizational culture, though it's difficult to change, with time. It is important for the organization to develop its culture as it influences the way people behave. Positive organization culture yield proper communication to each other and also to outsiders. This would help the organization shed the 'parastatal culture' that is sluggish.

To sustain the development of KenGen for the next ten years, there is definitely a need to reconcile both the inside-out and outside-in capabilities. The company will be possibly put

into a disadvantageous position should it choose to neglect both the macro as well as industry environment. Therefore, KenGen has to be aware of the latest technological changes, as well as changes in political, economic, legal and even demographic trends in order to develop the outside-in capabilities, such as market sensing, customer linking, channel bonding and technology monitoring.

Since ecological conditions affect power generation at KenGen, there should be effort by the organization to protect the environment by encouraging environmentally friendly products and processes affecting demand patterns and creating business opportunities. More investments to be done on the geothermal power productions as its more consistent and stable even with the adverse weather conditions affecting the company.

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**APPENDICES**

**Appendix I: Interview Guide**

This guide is designed to collect views of how KenGen responds to changes in the external Macro-environment in Kenya.

**SECTION A**

Interviewee Name (Optional).....

Position Held .....

Department .....

**SECTION B: STRATEGIC REPOSSES AND INFLUENCING FACTORS**

1. Are there any political changes affecting KenGen?

If yes, State which ones and how they are affecting KenGen.

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What is KenGen doing to cope with such changes?

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Why have you adopted these mechanisms and not others? Are there any constraints or factors influencing these choices?

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2. Are there any economic changes affecting KenGen?

If yes, State which ones and how they are affecting KenGen.

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What is KenGen doing to cope with such changes?

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Why have you adopted these mechanisms and not others? Are there any constraints or factors influencing these choices?

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3. Are there any social/cultural changes affecting KenGen?

If yes, State which ones and how they are affecting KenGen.

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What is KenGen doing to cope with such changes?

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Why have you adopted these mechanisms and not others? Are there any constraints or factors influencing these choices?

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4. Are there any technological changes affecting KenGen?

If yes, State which ones and how they are affecting KenGen.



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What is KenGen doing to cope with such changes?

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Why have you adopted these mechanisms and not others? Are there any constraints or factors influencing these choices?

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5. Are there any legal changes affecting KenGen?

If yes, State which ones and how they are affecting KenGen.

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What is KenGen doing to cope with such changes?

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Why have you adopted these mechanisms and not others? Are there any constraints or factors influencing these choices?

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6. Are there any ecological changes affecting KenGen?

If yes, State which ones and how they are affecting KenGen.

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What is KenGen doing to cope with such changes?

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Why have you adopted these mechanisms and not others? Are there any constraints or factors influencing these choices?

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