

**STRATEGIC RESPONSE BY THE MINISTRY OF ROADS TO
THE CHALLENGES IN THE ROADS SUB-SECTOR IN KENYA**

BY

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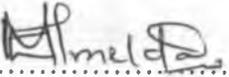
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DECLARATION

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

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DEDICATION

This study is dedicated to my dear husband Kevin and loving children Newton, Clare, Andrew and Moraa. I am indebted and full of gratitude for their support, prayers and encouragement during the Master of Business Administration Program.

To my parents Andrew and Esther who brought me up and ensured that I went to school, guided and taught me the values of life which I strongly hold up till today.

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ABSTRACT

Investment in infrastructure development drives economic growth of an economy and construction of roads is key in supporting this growth. Road transport is the predominant mode of transport in Kenya, and therefore considered as a lead factor for economic reconstruction, employment creation, industrialization and wealth creation in the new Millennium. It is a significant sector in the overall national economy by the fact that it caters for over 80% of total national mobility needs, both in urban and rural areas.

This study was conducted between 1st August 2010 to 31st August 2010. The objective of the study was to establish the strategic responses by the Ministry of Roads to the challenges in the roads sub-sector. This was a case study and data was collected through an interview guide and analysed through content analysis.

The results of the study conveyed that the challenges in the Roads sub sector negatively impacted on the Ministry of Roads and its agencies. The challenges include inadequate funding, inefficient operational procedures amongst Ministries with road construction components, unsuitable and cumbersome institutional framework, political influence, poor axle load enforcement, poor staff remuneration, unprotected road reserves, lack of mechanisms for private sector investment in funding of road development and computer technology challenges.

The results of study shows various strategic responses the Ministry employed in dealing with the challenges in the Roads sub sector. These include diversification to other sources of funding besides the ex-chequer funds, establishment of a strong institutional framework, privatization of some road components such as weighbridges, protection of road reserves by acquiring their title deeds, training staff especially on geometric design of rural and urban roads using modern computer aided software, involving the private sector in roads construction supervision, maintenance , construction and investment and finally, the enactment of the Roads Act 2007 by parliament.

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LIST OF ABBREVIATIONS

KeNHA – Kenya National Highways Authority

KeRRA- Kenya Rural Roads Authority

KURA-Kenya Urban Roads Authority

MTEF-Medium Term Expenditure Frameworks

RMI- Road Maintenance Initiative

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CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

The response of an organisation to the prevailing environment defines its success or failure in the long run (Porter, 1990). Therefore managers, both in the public and private sector need to equip themselves with the capacity to predict any significant business environmental changes that need strategic response (Pearce and Robinson, 1991). No wonder, the strategic environment is in a state of constant change and it is vital for an organisation to be able to detect when changes in an organisation are necessary (Bolman and Deal, 1991). Considering the importance of infrastructure in a growing economy like Kenya, this study focuses on the Ministry of Roads which is responsible for development and maintenance of public roads in Kenya.

1.1.1. Strategy

Strategy is defined as the direction and scope of an organization over the long term, which achieves advantage in a changing environment within which the choices about the nature and direction of an organization are made (Johnson and Scholes, 2002). This means that strategic management requires understanding the position of an organization, the strategic choices for the future and turning strategy into action. Grant (1998) defines strategy as a unifying theme that gives coherence and direction to the actions and decisions of an organization. It triggers an organization to a win situation.

Organizations are environmental dependant and therefore understanding the environment is key to the firm's success. Managers in the private and public sector need to have/develop skills in predicting significant environmental changes that need strategic response (Pearce J.A. and Robinson R.B., 1991). The strategic environment is in a state of constant change and it is vital for an organization to be able to sense when changes in the organization are going to be necessary (Bolman and Deal, 1991).

1.1.2. Strategic Response

Strategic response is a set of decisions and actions that result in the formulation and implementation of plans designed to achieve an organization's objectives (Pearce and Robinson, 1991). An organization's success depends on whether it is able to develop strategies to plan, direct and control change. Given the rate and pace of change in the 21st century, continuous monitoring of strategic progress, goals and indicators of success is a key input to regular reviews of an organization's strategy. This implies that an organization that monitors its strategic progress viz a viz its environment is better equipped to excel in the market place and outperform competitors (Kepner, 2001).

Porter (1985) well explains that the success of every organization is determined by its responsiveness to the environment. For an organization to retain its competitive advantage, it needs to examine its environment both external and internal and respond accordingly. This means that the quality of strategic decisions made depends on proper and accurate environmental scanning of an organization. Organizations should therefore endeavour to spend on market research in order to keep them informed about market trends and needs i.e. opportunities and threats that the environment poses.

Ansoff (1990) confirms that a firm's performance potential is optimized if the firm's strategic behaviour matches the turbulence of its environment, the firm's capability matches the aggressiveness of its strategy and the components of the firm's capability are supportive of one another. The environment consists of external and internal aspects of the firm which a strategist needs to understand, monitor and position the organization to manage the opportunities and threats thereof.

Understanding an organization's challenges is at the heart of successful strategic plans. There are challenges everywhere both within and out side the organizational boundaries. Clarity of challenges enables an organization to assess probability of achieving goals, and formulating plans to remove the road blocks on the way and identifying latent opportunities in the challenges.

Organization challenges when addressed proactively provide a company with opportunity for creating a better future and thus strategic plans are the means of addressing these organizational challenges and making the most of the opportunities that accompany the challenges (Senge, 1999).

Companies must question the basic premises of the way they do business even when they are doing well. They should focus on strategies that stimulate further growth, how to eliminate bureaucracy, what drives customer satisfaction etc. These are some of the questions and answers that may reveal some of the challenges that an organization faces and there-in may lay the real opportunity for future growth (Senge, 1999)

1.1.3. The Roads Sub-Sector under the Ministry of Roads in Kenya

Investment in infrastructure development drives economic growth of an economy and construction of roads is key in supporting this growth. Roads are the primary communication links to all sectors of the economy and to the population. They support national and regional developments which promote urbanization, minimisation of regional economic gap, promotion of employment opportunities, increase of foreign exchange earnings, development of transport facilities and environment conservation (Kenya Vision, 2030). This means that the road network forms the bedrock for any economic and social development of an economy. Therefore, it is accurate to say that an efficient road infrastructure system is a prerequisite for economic and social development. (Republic of Kenya, Physical Infrastructure Sector MTEF Report, 2010/11-2012/13).

The Road sub- sector all over Africa faces similar challenges which calls for strategic response in order to address the challenges. Successful road sector reforms have been initiated in many African countries such as Namibia and Tanzania. The major goal of the reforms is to create a fully self-financed road network by way of road user charges and effective management of roads maintenance works. This is well captured in the Road Maintenance Initiative (RMI), where African countries formed a consensus that roads reforms in Africa were required. The RMI outlines that effective roads management requires, firstly, ownership by road users and winning their active support in roads management. Secondly, a clear mandate and legal identity for each

organization involved in the sector. Thirdly, secure, adequate and stable flow of funds to the roads sector. Finally, the need for businesslike approach to roads management. (World Bank report on Road Maintenance Initiative in Sub-Saharan Africa, 1990).

Road transport is the predominant mode of transport in Kenya, with its infrastructure representing a significant proportion of Government's total financial investment in fixed assets. The roads sector in Kenya is therefore considered as a lead factor for economic reconstruction, employment creation and industrialization and wealth creation in the new Millennium. It is a significant sector in the overall national economy by the fact that it caters for over 80% of total national mobility needs both in urban and rural areas. (Joint Reform Steering committee report on road sub sector institutional framework, 2006).

Kenya vision 2030 well highlights that by 2030, Kenya will be firmly interconnected through a network of roads, railways, ports, airports, water and sanitation facilities and telecommunications hence no region in the country shall be referred to as 'remote'. To ensure that the main projects under the economic pillar are implemented, investment in infrastructure will be given the highest priority (Kenya Vision, 2030).

Kenya has an extensive road network of approximately 177,800 kilometres, of which 63,300 kilometres are classified roads. The functional classification of the road network is summarised in table 1 and table 2 below.

Table 1: The Road Network in Kenya

TYPE	CLASSIFIED		UNCLASSIFIED		TOTAL
	MAIN A,B,C	RURAL D,E & OTHER	RURAL	URBAN	
Paved	7,100	2,000	0	2,500	11,600
Unpaved	7,200	47,000	100,000	12,000	166,200
Total	14,300	49,000	100,000	14,500	177,800

Source: Ministry of Roads, 2006

Table 2: functional classification

CLASS A	International trunk roads
CLASS B	National trunk roads
CLASS C	Primary roads
CLASS D	Secondary roads
CLASS E	Minor roads
CLASS T,W,L,G,V,R	Special purpose roads

Source: Ministry of Roads, 2006

Table 1 shows that only 6% of our Kenyan roads are paved and the rest are unpaved. This implies that roads needs are wanting and it calls for funding to have the percentage of paved roads upgraded. . The classified roads are 35% while 65% unclassified roads. Unclassified roads maintenance is not linked to any specific funding and therefore is in bad state. The high percentage is alarming! Table 2 shows the road classification which depends on the needs the roads serve.

The Ministry of Roads in Kenya exercises the sub-sectoral responsibility over the entire network of roads in the country. The Ministry is responsible for development, rehabilitation and maintenance of the road network in the country. Its vision is to attain and sustain world class roads infrastructure to enhance socio-economic development. The Ministry's main objective is to facilitate provision, maintenance and management of quality roads infrastructure in support of Kenya Vision 2030 aspiration (Joint Reform Steering Committee Report on road sub sector institutional framework, 2006). The other related roads agencies, i.e. Local Authorities, Kenya Wildlife Services, and Kenya Sugar Board etc work closely with the Ministry of Roads.

The major challenges faced by the roads sub-sector include inadequate funding for road development, rehabilitation and maintenance; inefficient operational procedures that lack clarity in the legal, operational and structural relationships amongst road management agencies; unsuitable and cumbersome institutional framework; poor staff remuneration; inefficiency in axle load enforcement; lack of mechanisms for private sector investment in road development

and maintenance; inadequate protection of road reserves; political influence over which roads to be prioritised and computer technology challenges.

The challenges highlighted above call for strategic responses in order to address the major challenge of poor state of roads in Kenya. The study determined how the challenges impacted on the Ministry of Roads and the strategic responses it applied to mitigate the impacts or address the challenges.

1.2. Statement of the Problem

An organization's success depends on whether it is able to develop strategies to plan, direct and control change. Given the rate and pace of change in the 21st century, continuous monitoring of strategic progress, goals and indicators of success is a key input to regular reviews of an organization's strategy. This implies that an organization that monitors its strategic progress viz a viz its environment is better equipped to excel in the market place (Kepner, 2001).

The roads sub sector in Kenya faces a series of challenges which the Government of Kenya through the Ministry of Roads is trying to address. These include; inadequate funding for the roads projects, inefficient operational procedures that lack clarity in the legal, operational and structural relationships amongst road management agencies, unsuitable, inefficient and cumbersome Institutional framework, political influence over which roads to be prioritised, poor axle load enforcement, poor staff remuneration, unprotected road reserves, lack of mechanisms for private sector investment in funding of road development and computer technology challenges.

A number of scholars have researched on strategic responses to a competitive environment. These include MBA projects Maina (2006), Kandie (2001), and Kiptugen (2003) among others. Kandie's (2001) findings for instance indicate that despite liberalization being the driving force for change in Telkom Kenya, other challenges like financial constraints and lack of managerial capacity limited the company's capacity to respond. Kiptugen (2003) found out that Kenya Commercial Bank responded to changing competitive environment through culture change, restructuring, marketing and information technology.

The studies on strategic responses to a competitive environment have concentrated only on the competitive environment which is geared towards profit maximization. However, this study concentrated on strategic responses to challenges within a sub-sector of an economy critical to all sectors of the Kenyan economy and geared towards customer satisfaction. Besides, none of the studies has been carried out exclusively on the strategic responses by the Ministry of Roads to the challenges in the roads sub-sector. The Ministry of Roads is a public institution whose main focus is not profits but efficiency in production of public goods and customer/public satisfaction. It is worth noting that the Ministry of roads managerial process is different from other industries covered in the previous studies. This is due to differences in the environmental and organizational factors. The ministry does not face local competition and therefore enjoys monopoly. However, with globalization, investors and potential investors are attracted to economies with good infrastructure especially roads and this has a great impact on the economic growth of the Kenyan economy.

As indicated above, the Ministry faces various challenges in their effort to provide effective and efficient services to the society / public. The study is a springboard to answering the study objective which was to establish strategic responses by the Ministry of Roads to the challenges in the roads Sub-sector.

1.3. Research Objective

The research objective was to establish the strategic responses by the Ministry of Roads to the challenges in the roads sub-sector.

1.4. Significance of the study

As well highlighted in the background above, an efficient road infrastructure system is a prerequisite for economic and social development. Road transport is the predominant mode of transport in Kenya which caters for over 80% of total national mobility needs both in urban and rural areas hence an important sector of the Kenyan economy.

The study forms a part of reference to the Government or public sector on effective ways of responding to organizational challenges. It provides useful insights to the Ministry officers into understanding the different and acceptable ways to address organizational challenges in the future.

The outcome of this study has contributed to the body of knowledge on strategy and strategic responses and serves as a reference to students and researchers in the field of strategic management.

Road contractors and other stakeholders in roads management, funding and construction benefit from this study because it serves as a reference material. As a result, they will appreciate the techniques and strategies employed to curb the challenges in the sector.

The study provides problem solving techniques to organizations through employment of the right strategies to challenging situations. It is helpful to Policy makers in formulation of policies appropriate for their organizations.

CHAPTER TWO: LITERATURE REVIEW

2.1. Strategic Management

Strategy emanates from the wide subject of strategic management and therefore it is paramount to understand the origin of the subject of strategic management. According to Johnson & Scholes (2004), strategic management includes understanding of the strategic position of an organization, strategic choices for the future and turning strategy into action. This means that it involves planning, directing, organizing and controlling a company's strategy related to decisions and actions.

Cole (1997) defines strategic management as a process, directed by top management, but engaged in throughout the management structure, aimed at determining the fundamental aims of the organisation, including those concerned with satisfying customers legitimate needs and ensuring the attainment of those fundamental aims and goals through the adoption of adequate decision making mechanisms and the provision of adequate resources in support of a planned direction for the organisation over a given period of time. This means that all managers both in the top and operational levels should be involved in strategy formulation, implementation and evaluation.

Formal strategic planning began in the 1950s in the United States of America. It originated from questions such as, what is our business and what should it be? (Drucker, 1954). According to Drucker(1954), the mission of an organisation provide's the basic direction and framework for setting of objectives, development of strategies and making strategic decisions for tomorrow's good results.

Between 1973 and 1985, there was widespread dissatisfaction with strategic planning. Strategic planning lacked an action orientation due to too much emphasis on planning at the expense of implementation, it was highly rational and analytical and Political and behavioural considerations in strategy process, were ignored hence not sustainable in the increasing environmental turbulences, reduced business opportunities and increased competition. According to Mintzberg (1999), formal strategic planning only gave rise to deliberate strategies and yet

realized strategy was the outcome of both deliberate and emergent strategy hence the need for strategic management.

Ansoff (1990) developed a strategy grid that compared market penetration strategies, product development strategies, market development strategies and horizontal and vertical integration and diversification strategies. He felt that management could use these strategies to systematically prepare for future opportunities and challenges. In his 1965 classic *Corporate Strategy*, Ansoff (1990) developed the gap analysis still used today in which we must understand the gap between where we are currently and where we would like to be, then develop what he called “gap reducing actions”.

2.2. The concept of strategy

The concept of strategy can best be understood by looking at various definitions of strategy advanced by different scholars. Johnson and Scholes (2002) define strategy as the direction and scope of an organization over the long term, which achieves advantage in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations. It means that managers need to understand the strategic position of an organization, strategic choices for the future and be able to turn strategy into action.

Aosa (1998) defines strategy as solving a strategic problem, which is a mismatch between internal characteristics of an organization and its external environment. There needs to be a strategic fit between the internal and external business environment to ensure a match between the two environments. Aosa’s definitions go in handy with Porter’s views i.e. organizations are environment dependant. According to Porter (1990), the success of every organization is determined by its responsiveness to the environment. For an organization to retain competitive advantage, it needs to examine its environment both external and internal and respond accordingly.

Strategy is a unifying theme that gives coherence and direction to the actions and decisions of an organization (Grant, 1998). It triggers an organisation to a win situation and therefore, an

organisation without a strategy is not bound to exist for long because it will be outwitted by environmental forces.

According to Quinn (1999), a strategy is the pattern or plan that integrates an organization's major goals, policies and actions sequences into a cohesive whole. A well formulated policy helps to marshal and allocate an organization's resources into a unique and viable posture based on its relative internal competencies and shortcomings, anticipated changes in the environment and contingent moves by intelligent opponents.

Ansoff and McDonnell (1990) notes that strategy is a very powerful tool for coping with conditions of change which surround the firm today as it prepares the firm to face complex external environment, while its corporate capability develops responsiveness to anticipated threats and opportunities. They note that strategy aligns organizations with its external environment and seeks to bridge the gap between the current positions of the organization to its future intended direction using a set of decision making rules to guide such behavior.

In summary, strategy enables organizations to obtain a match between their external environment and internal capabilities. It enables organizations to respond to the opportunities and threats as presented by the external environment. It also continuously and actively adapts the organization to meet the demands of a changing environment.

2.3. Environment, Strategy & Organization Capability

The success of every organization is determined by its responsiveness to the environment (Porter 1985). The environment can be relatively stable or highly turbulent. Each level of environmental has different characteristics that require different strategies and capabilities and therefore there is need for continuous strategic diagnosis. Strategic diagnosis is a systematic approach to determining the changes that have to be made to a firm's strategy and internal capability in order to assure the firm's success in the future environment (Ansoff, 1990).

Johnson & Scholes (2002) notes that successful strategy enables interaction between internal and external environment. He further notes that successful strategy is one in which resources and activities of an organization are matched to the environment in which the organization operates

hence forming a strategic fit (developing strategies by identifying opportunities in the business environment and adapting resources and competences so as to take advantage of these opportunities).

The strategic success is optimum when the aggressiveness of the firm's strategic behavior 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 are supportive of one another (Ansoff and McDonell, 1990). This means that strategic responses involve changes to the organization's behavior that may take many forms depending on the organization's capability and the environment in which it operates. Strategic aggressiveness must be appropriate for each level of environmental turbulence and organizational capability must be appropriate for each level of strategic aggressiveness (Ansoff, 1990).

Grant (2000) notes that a successful strategy is consistent with the organization's goals and values, external environment, resources and capabilities, and organizational systems. This indicates the fact that the organization depends on the environment for its survival and the responses to the environment situation will determine its performance. Thus, when there are changes in the environment, the organization's capabilities and strategy would have to be changed in order to ensure a continued strategic fit.

Thompson (1997) affirms that the environment delivers shocks to an organization and the way in which resources are deployed and managed determines the ability to handle these shocks. In turbulent environment, the organization must change its strategies and possibly its beliefs if it has to remain successful. The success or failure of organizations is based on how well they understand customer needs and are able to meet those needs. In this regard, managers in the private and public sector need to develop skills in predicting significant environmental changes.

Ghoshal (1987) says that the challenge for people scanning the environment is to produce information that is perceived to be useful. Most managers agree that environmental information is important but they often don't use the information. Those that do, use it because past experience has shown that new developments are constantly occurring that might impact on the

organization either positively or negatively. Early identification of changes in the business environment require continuous monitoring of the business environment and for early response to the changes, decision responsibility must be delegated. Early detection of critical issues leaves more time for response, hence the importance of detecting weak signals in the organization's business environment (Ansoff, 1990).

An organization needs to address the challenges of the environment if it were to survive and prosper. It must be capable of delivering against the critical success factors that arise from demands and needs of its customers. The strategic capability to do so depends on the resources and the competence it has. These must reach a threshold level in order for the organization to survive (Johnson, Scholes and Whittington, 2006).

General management is an important factor in diagnosing the success of a strategy. It includes Managers Capability to respond, organizational climate and organizational competence. The manager's capability to respond focuses on the manager's mentality about change, his competence and work capability. Organizational climate refers to the propensity to respond in a particular way e.g. welcoming or resisting change. It is the attitude towards change, propensity to take risk, trigger of change and the shared model of the world within the organization. Organizational competence is the ability to respond to a change in the environment. It requires organization problem solving skills and style, problem solving process, management processes (informal verses formal systems), Information used in managing change, organizational structure, rewards and incentives, organizational capacity(staff levels) and capacity (Ansoff, 1990).

Organizational learning is a critical component of competitiveness in a dynamic environment. It requires flexibility i.e., long-term commitment to the development and nurturing of critical resources in the organization. This calls for an organization skilled at creating, acquiring and transferring knowledge and modifying its behavior to reflect new knowledge and insights (Wheelen & Hunger, 2008). Wheelen & Hunger, (2008) further notes that learning organizations are skilled at solving problems systematically, experimenting with new approaches and learning from own experiences and past history as well as experiences of others.

De geus (1997) found out that learning organizations were good at adapting to a changing environment. He notes four personality traits of long surviving organizations i.e. they show conservation in financing, they are sensitive to the business environment, adapting and learning, they are aware of their identity/internal environment and are open to new ideas to stretch the organization.

Ackoff (1983) came up with a decision making model for organizational rapid response, learning and adaptation. It included environmental surveillance function to help detect unusual events that had happened or were likely to happen in the environment. Surveillance is critical because it enables the organization to adapt to a changed environment and for rapid response to change.

In the case of Telkom Kenya, Kandie (2001) found out that despite liberalization being the driving force for change in Telkom Kenya, other challenges like financial constraints and lack of managerial capacity limited the company's capacity to respond. The external environment changes were too turbulent for Telkom Kenya and this called for a match of strategy and organizational capability to the turbulent environment.

Research over time indicates that understanding the business environment or challenges is key to an organization's success. The Ministry of Roads is such one organization which faces several challenges in the effort of providing quality roads infrastructure in Kenya.

2.4. Strategic Responses

In today's fast changing business environment, strategic thinking and strategy formation are essential tools for all types of organizations because it enables them deal with future uncertainty (Wilson, 1998). Slow change can be dealt with systematically; however, radical change requires rethinking of strategy. Wilson (1998) further notes that strategy gives direction for the organization to negotiate through the environmental mine field of the business world.

Strategic responses are a set of decisions and actions that result in the formulation and implementation of plans designed to achieve a firm's objectives (Pearce & Robinson, 1991). For an organization to be successful, it must be able to develop strategies to plan, direct and control change. Strategic responses are concerned with decisions and actions meant to achieve business objectives and purpose. Strategy answers the fundamental questions of 'where do we want to go? Where are we now? How do we get there?' Three areas of an organization strategy are important in identifying the responses of a firm to the environmental challenges. They include objective setting, vision and mission of the organization and strategic direction of the organization. (Lowes 1994).

The strategies an organization pursues have a major impact on its performance relative to its peers (Hill and Jones, 2001). Certain management characteristics such as youth, type of strategic objective set, the direction in which manpower resources are employed and containment of bureaucracy are associated with superior growth performance by business(Howe, 1986).The characteristics as viewed by Howe(1986) are useful in explaining economic performance than variables such as company size, control group in the firm etc. Thompson (1997) defines strategic adaptations as a change that takes place over time to the strategies and objectives of an organization. Such changes can be gradual, evolutionary or revolutionary.

There are three levels of strategic responses i.e. corporate level responses, business level responses and operational level responses. Corporate strategy helps in the process of establishing a distinctive competence and competitive advantage at the business level. It is the first level of strategy at the top of the organization and it is concerned with the overall purpose and scope of the organization to meet the expectations of owners or major stakeholders and add value to different parts of the organization (Johnson and Scholes, 2002). These include issues of geographic average, diversity of products or services and how resources are to be allocated between different parts of the organization. According to Ansoff (1990), firms diversify because the objectives of an organization can not be achieved by continuing to operate in their existing market.

Business level strategy concentrates on serving particular market niche, which can be defined by type of customer, geographically or by segment of product line. The strategy provides an opportunity to an organization to develop its niche and competence against low cost and differentiated enterprises which tend to be larger. It is about how to compete successfully in particular markets (Johnson and Scholes, 2002). This happens through strategies like cost leadership strategy, differentiation strategy and/or a combination of the leadership and differentiation strategies.

The cost leadership strategy is where an organization strives to be a leader in low pricing of its products hence attracting a bigger market. The low pricing culminate from economies of scale due to bulky purchase of raw materials, economies of production, economies of marketing, economies of transport and distribution etc. A competitive advantage exists when the firm is able to deliver the same benefits as competitors but at a lower cost.

The differentiation strategy endeavors to outdo competitors by an organization differentiating its products by adding value to them. This through unique packaging, providing after sales services, etc. Kotler (1990) notes that differentiation strategy allows firms to earn above average returns. The strategy protects an organization from competitors because of the brand loyalty and uniqueness of an organization's products. The cost leadership and differentiation strategy can be combined to give an organization competitive advantage.

The operational level response is concerned with how the organization delivers effectively the corporate and business level strategies. This is in terms of resources, processes and people. The strategy looks at how the corporate and business level strategies can be translated into concrete operational functional and processes in areas like research and development, human resources, financial management, project management, operations management etc. The operations level focuses on the short term and aim at achieving efficiency in the use of resources and maximizing the returns for the stakeholders in the organization (Hill and Jones, 2001).

All the three levels of strategy complement one another and strategy cannot succeed without involving all levels of the organization. It means that top managers in their effort to formulating

of corporate strategies should get the input of the low level staff and middle level managers. Once they are involved from the strategy formulation stage, strategy implementation is likely to succeed.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Research Design

The research study was in form of a case study. A case study is one of the research designs that involve in-depth contextual analysis of matters (Sekaran, 2006). Data is usually collected from one or a few study units that require careful and complete observation of the unit e.g. an institution, family culture group, community etc. A case study places more emphasis on a complete contextual analysis of fewer events and conditions and their interrelations (Cooper & Schindler, 2005). Data was qualitative hence a qualitative study.

Case study was preferred in this research because the objective of the study required an in depth understanding of the challenges facing the roads sub-sector and the strategic responses the Ministry of Roads has made in addressing the challenges. Case studies contribute uniquely to our knowledge of individual, organizational, social, and political phenomena (Yin, 1998).

3.2. Data collection

Both secondary and primary data were used. Primary data was collected by an interview guide and the questions were both open ended and closed. The study gave preference to structured questions to allow consistency in data collection and analysis. Secondary data was obtained from government sessional papers on Road sub sector reforms and road sub sector reform steering committee reports.

The study targeted to interview a total of nine senior officers in the Ministry of Roads and the three Roads Authorities i.e. Kenya National Highways Authority (KeNHA), Kenya Rural Roads Authority (KeRRA) and Kenya Urban Roads Authority (KURA). The case study specifically targeted those officers who were directly involved in the strategic response to the challenges in the roads sub-sector. At the Ministry of Roads, the officers interviewed include The Executive Engineer who also doubles up as the Secretary to the Engineers Registration Board (ERB), the Head of Roads Maintenance, and the Head of Road Design. In KeNHA, one manager from special projects and the Manager Design were interviewed. Two Regional Managers were

interviewed from each of the other two authorities i.e. KeRRA and KURA. The interview guide used focused on the bio-data of respondents, how the challenges in the roads sub-sector have impacted on the Ministry of Roads operations and strategic responses the institution has undertaken.

3.3. Data Analysis

The data collected was evaluated to determine usefulness, consistency, credibility and adequacy. The responses were then content analyzed because this is a case study which require in depth qualitative data analysis. Content analysis involves explanation of status of some phenomena of documentary materials such as books, magazines, newspapers and the contents of all other verbal materials that can be spoken or printed (Kothari, 2004). The technique has been successfully used by Kandie, 2001, Kiptugen, 2003 and Mathara, 2007 among others.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 The Respondents Profiles

The respondents comprised of the top management of the Ministry of Roads/Agencies, most of whom were instrumental in the strategic response to the challenges in the roads sub-sector. A total of nine senior officers in the Ministry of Roads and the three Roads Agencies i.e. Kenya National Highways Authority (KeNHA), Kenya Rural Roads Authority (KeRRA) and the Kenya Urban Roads Authority (KURA).

These officers included the Ministry of Roads Executive Engineer who also doubles up as the Secretary to the Engineers Registration Board (ERB), the Head of Roads Maintenance, and the Head of Roads Design. In KeNHA, a Manager- Special Projects and the Manager-Design were interviewed. Two Regional Managers were interviewed from each of the other two authorities i.e. KeRRA and KURA.

It is worth noting that reforms are still ongoing especially in the Ministry of Roads where most positions such as Head of Roads Maintenance and Head of Road Design are being phased off. These positions have been created in each of the three Roads Authorities under their jurisdiction.

4.2 Impact of the challenges in the Roads sub-sector and Strategic Responses

Infrastructure development drives socio-economic growth of an economy and the Ministry of Roads is mandated by the Government of Kenya to be responsible for efficient development, rehabilitation and maintenance of the road networks in the country. The study sought to understand how the challenges in the Roads Sub-Sector have impacted on the Ministry of Roads/agencies and the strategic responses the Ministry of Roads/agencies took to address the challenges.

The study shows that the strategies the Ministry of Roads employed were mainly focussing on the realization of the Organisation's vision which is in line with Kenya Vision 2030 i.e. "The 2030 Vision aspires for a country firmly interconnected through a network of roads, railways,

ports, airports, water and sanitation facilities and telecommunications. By 2030, it will become impossible to refer to any region of our country as “remote”. Furthermore, to ensure that the main projects under the economic pillar are implemented, investment in the nation’s infrastructure will be given the highest priority” (Kenya Vision 2030).

4.2.1 Inadequate funding

Inadequate funding for road development, rehabilitation and maintenance has been a critical problem/challenge. The study reveals that Kenya highly depends on development partner assistance which is unpredictable and unreliable. The other reasons are, inadequate allocation of road development funds in Kenya’s National Budget, unexploited sources from the private sector and diversion of road development resources during emergencies e.g. famine, floods operations etc. Due to financial constraints, most Kenyan surfaces condition has deteriorated.

The study reveals that the Government of Kenya through the Ministry of Roads/agencies has gradually embarked on other ways of raising funds apart from the ex-chequer funds. These include road maintenance levy funds/fuel levy, transit toll levy fund, sale of tender documents, levy through water crossings and fees from use of road reserves. The Ministry of Roads has also embarked on Partnering with Development partners e.g. the African Development Bank has partnered with the Government of Kenya in the construction of Nairobi-Thika Highway. Kenya’s good international relations has also reinforced donor support from economic giants through the World Bank e.g. the financing of the development/building of the Northern Corridor. The study also shows that in the recent past, the government has increased its budget for road construction and maintenance tremendously and currently numerous road projects are ongoing. The government has also established the Ministry of Special Programmes to deal with emergencies like famine, floods etc. This has limited the amount of funds diverted from road development resources to attend to such emergencies.

4.2.2 Inefficient Institutional reforms

Institutional framework has been unsuitable and cumbersome for efficient and effective delivery of road networks. The study notes that the Ministry of Roads faces the challenge of bureaucracy and this has led to slow/delayed service delivery. It is also prone to a high level political interference which sometimes influences decision making by the professionals (engineers). This has created some level of inefficiency in the Ministry's operations.

In response to unsuitable and cumbersome institutional framework, the study shows that the Ministry of Roads through an Act of Parliament established three Road Authorities i.e. Kenya National Highways Authority (KeNHA), Kenya Rural Roads Authority (KeRRA) and Kenya Urban Roads Authority (KURA).

The three Authorities/institutions have been established to improve efficiency of implementation of road programmes. KeNHA is responsible for implementation of road programmes of class A, B and C roads. KeRRA is responsible for rural and small town roads as well as special purpose roads. KURA is responsible for urban and municipality roads. This means that the Ministry of Roads is not directly implementing road programmes but only focuses on the formulation and coordination of policy, strategy and investment plans for the roads sub-sector. This has increased efficiency in service delivery because the bureaucratic structure has been broken down and decision making is faster.

4.2.3 Poor Staff Remuneration

Staff remuneration under the Terms and Conditions of the Civil Service is unattractive compared to that of the corresponding ranks in the private sector. The study reveals that many competent engineers/professionals have opted to seek greener pastures elsewhere in the private Sector hence loss of experienced professionals which has ultimately created loopholes in the roads management and supervisory roles.

In order to counter the problem of poor staff remuneration, the study confirms that the Ministry of Roads/agencies provide many opportunities for training in form of scholarships which

motivates staff. Besides, most Ministry agencies are parastatal and get better remuneration and benefits than those in the mainstream civil service. The Ministry/agencies also has ongoing road projects and the supervisory teams earn site allowances besides their salaries.

4.2.4 Inefficient Operations procedure

Inefficiency in operational procedures that lack clarity in the legal, operational and structural relationships amongst Ministries with road construction components e.g. Ministry of Local Government, Ministry of Internal Security, Ministry of Forestry etc is another major challenge. Undefined policies, laws, organizational relationships on how the Ministries relate to the Ministry of Roads has led to inconsistency in the Road asset management and duplication of roles i.e. several ministries concurrently exercising road management responsibilities through their agencies.

In order to address the inefficiency in operational procedures, legal and structural relationships amongst Ministries with road construction components e.g. the Ministry of Local Government, the Ministry of Internal Security, Ministry of Forestry etc, the Ministry of Roads/agencies has taken adequate measures to address that. The study reveals that the Ministry of Roads is the overall in charge of the provision and maintenance of all roads in Kenya and this is provided for in the Roads Act 2007. The implication of this is that all other Ministries which implement projects with road related components should consult with and seek the inputs of the Ministry of Roads or its Road agencies.

4.2.5 Poor Axle Load Control and Enforcement

Axle Load Control and enforcement is known to be an important tool to control traffic loading of our roads. However, axle load enforcement has been a big challenge. The study tells us that the low performance of railway sector has led to a larger portion of heavy cargo on roads and this is one of the major causes of deterioration of our Kenyan roads. The other reasons include, culture/attitude that 'public goods' are used in whichever way, poor enforcement structures, reluctance of the transporters to obey the law, corruption, lack of automated management system (not prone to manipulation) and inadequate personnel to man all roads.

To deal with the axle load enforcement challenge, the study reveals that the Ministry of Roads has privatised the management of most weighbridges. This has brought a lot of improvement because weighing and ticketing of operations are now computerised in most of the weighbridges, increased surveillance of operations through ad hoc supervision teams and continuous sensitisation of transporters on the importance of protecting public resources and obeying the laws that govern axle load.

4.2.6 Limited Provision for Private sector participation

There were no mechanisms for private sector investment in the funding of road development or maintenance. The study notes that apart from the funds raised through government infrastructure bonds and taxes where the private sector participates, there has been no other avenue created for private sector direct investment in roads management, development and rehabilitation. This has led to losses of opportunities emanating from the private sector.

In order to create avenues for private sector active involvement in funding and management of roads, the Ministry of Roads/agencies has put in place mechanisms to facilitate that. In management for instance, the private sector has been contracted to manage most weighbridges in the country and plans are underway to have all weighbridges privatised. Secondly, private sector consultants are being contracted to supervise road works in some major roads in Kenya e.g. the Eastern and Northern Bypass and Thika Road Project construction among others. Finally, the Road Agencies Management Boards are comprised of professionals from various sectors of the Kenyan economy.

4.2.7 Political interference on road related decisions

Political interests at times interfere with the running of Government/Public Institutions and the Ministry of Roads is no exceptional. The study shows that prioritization of roads looks into the economic importance of the road (internal rate of return) which gives consideration to class of the road, traffic volume, population density and level of productivity of the road. However, the study confirms that political influence has sometimes eroded the considerations highlighted above and diverted funds to roads of high political interest and not planned for.

The study reveals that political interference has been dealt with by forming autonomous Road Authorities (KeNHA, KeRRA and KURA) which have Board members from the private sector. Besides, the Ministry/agencies have embarked on elaborate planning systems that ensure the entire country is covered in terms of road development and maintenance. This is reinforced with proper prioritising of projects i.e. based on the internal rate of returns and proper planning for the roads at the start of the financial year. This avoids incidences of politicians lobbying for their regions to be allocated funds haphazardly.

4.2.8 Encroachment of the road reserves

Road reserves have not been adequately protected due to encroachments by private developers. The study reveals and it has been observed that in the recent past a lot of structures on road reserves have been forcefully demolished. This has delayed road works and even made some road works be costlier than expected.

In the effort to protect road reserves, the Ministry of Roads/agencies has embarked on some programmes to protect encroachment by private developers. The study reveals that surveying, mapping and demarcating road reserves is happening countrywide and this clearly shows where we have road reserves. The exercise is being reinforced by clearing road reserves, installing boarder marker posts and road reserve protection officers have been appointed. The Ministry/agencies is sensitising communities on the consequences of erecting illegal structures on road reserves. Finally, there is an effort by the Ministry of Roads/agencies to obtain title deeds for all road reserves to prevent illegal encroachments.

4.2.9 Embracing modern Information Technology Techniques

The use of modern technology is catching up in most public institutions including the Ministry of Roads. Road designs are no longer done manually but through use of computer softwares and engineers/professionals have the challenge of embracing and catching up with the technology. This calls for support to staff as this will increase efficiency and accuracy in the roads works.

In order to embrace information technology and have everyone on board, the Ministry of Roads/agencies has organised continuous trainings for staff. The study shows that continuous trainings have greatly had a positive impact on staff who can now design roads using computer aided technology. The Ministry/agencies has invested in purchasing enough computers for staff and acquiring various road design programmes which has increased the quality of road designs. Some of the ministry of Roads/Agencies Staff have been attached to private Consultants/road design firms to learn and apply the same in their work.

CHAPTER FIVE: SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Summary

The study established that challenges in the roads sub-sector impacted negatively on the Ministry on Roads in terms fulfilling its mandate of roads development, rehabilitation and maintenance. The challenges include; inadequate funding for the roads projects, inefficient operational procedures that lack clarity in the legal, operational and structural relationships amongst road management agencies, unsuitable, inefficient and cumbersome Institutional framework, political influence over which roads to be prioritized, poor axle load enforcement, poor staff remuneration, unprotected road reserves, lack of mechanisms for private sector investment in funding of road development and computer technology challenges.

The study also reveals that various strategic responses were employed by the Ministry of Roads to address the challenges highlighted above. For instance, inadequate funding was addressed by diversifying to other avenues of fund raising besides the ex-chequer funds. Unsuitable institutional framework called for establishment of three independent Road Authorities charged with the responsibility of implementation of road projects. This left the Ministry with the overall policy matters regarding roads countrywide. Poor staff remuneration has been addressed by provision of other attractive benefits e.g. training, site allowances etc.

The remedy of inefficiency in operational procedures between Ministries with Road components and the Ministry of Roads was the enactment of the 2007 Roads Act. The act stamps the authority on the Ministry of Roads as the overall in charge of the provision and maintenance of all roads in Kenya. Axle load challenge has been addressed by privatization of weighbridges. Unlike in the past, the study reveals that the private sector is now incorporated in Roads management, investment and development. This has been fast tracked by incorporating members from the private sector in the Roads Authorities Boards.

Political interference is now minimal with the roads implementing Road Authorities in place. The Board members of the Road Authorities are from the private sector and do not entertain negative political influence in Road works. Besides, the planning of Roads is now more

comprehensive and relatively covers the whole country. The study also shows that measures for preserving road reserves are in place e.g. acquiring title deeds for road reserves, demarcating and marking the borders etc. Computer technology has been embraced well and continuous trainings of staff has greatly improved road designs.

5.2 Conclusion

The Ministry of Roads/agencies has witnessed tremendous improvement in their mandate of roads development, rehabilitation and maintenance. This is due to the various strategic responses employed to curb the major challenges in the roads sub sector. The good work of the Ministry of Roads can be witnessed by the rapid countrywide maintenance of roads, development of new roads e.g. the Northern and Southern by passes among others.

The pace of the good work by the Ministry of Roads need to be maintained by critically addressing many other problems/challenges not discussed in this research project. This means that, the Ministry should transform to become a learning organisation which adapts to a changing environment.

5.3 Recommendations

The good practices and strategies already adopted by the Ministry of Roads should be employed continuously to sustain the good performance of the Ministry of Roads. This should apply to the Roads Authorities and all other road agencies to ensure overall good work in the roads sub-sector.

The Ministry of roads/agencies should look into the other challenges in the roads sub sector not covered in this study and develop strategies to counter them. This can be achieved by continuously scanning its environment and accessing many more challenges that need to be addressed and opportunities to move on and become a developed economy. This is reinforced by De geus (1997) that learning organizations were good at adapting to a changing environment.

5.4 Limitation of the Study

Organizations are dynamic and unique in their own ways hence strategies that work well in one organization might not work well in another. The strategic responses employed by the Ministry of Roads/agencies may not apply to other organizations or other Ministries in the public sector. Thus, the results of this study can not be wholly generalized to apply in other organizations.

Due to time constraint, the study concentrated on the Ministry of Roads and the three Road Authorities i.e. Kenya National Highways Authority, Kenya Rural Roads Authority and Kenya Urban Roads Authority. However, there are other major Road Agencies like Kenya Roads Board and Ministry of Local Government which have not been discussed in detail in this research project.

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APPENDIX 1: LETTER OF INTRODUCTION

University of Nairobi
School of Business
P.O. Box 30197
NAIROBI
28/07/2010

The Ministry of Roads/Agency,
NAIROBI

Dear Sir/Madam

RE: Research Project

I am pursuing a Master of Business Administration (MBA) Program at the University of Nairobi. My area of specialization is Strategic Management. As a partial fulfilment of the requirements of the award of the degree, I am currently conducting a research study on Strategic Response by the Ministry of Roads to the Challenges in the Roads Sub-sector in Kenya.

Your Organization has been selected for this study, I humbly request for your valuable time in assisting to complete the attached questionnaire. My supervisor and I assure you that the information you provide in this study will be treated with utmost confidentiality and will be used exclusively for academic purposes. I hereby undertake not to make direct reference to your name in any presentation or report thereto the study. A copy of the research report will be availed to the respondents upon request.

Your cooperation will be highly appreciated.

Yours faithfully,

Elmelda Mokaya

Dr. John Yabs

APPENDIX 2: INTERVIEW GUIDE

SECTION A: RESPONDENT'S PROFILE

1. What is your designation.....
.....

2. What is your highest level of education?

Diploma/Certificate ()

Undergraduate Degree ()

Postgraduate Degree ()

Others (specify) ()

3. How long have you been working in your present position?

Less than 3 years ()

3 to 5 years ()

5 to 7 years ()

Over 7 years ()

SECTION B: STRATEGIC RESPONSES BY THE MINISTRY OF ROADS/ AGENCIES TO CHALLENGES IN THE ROADS SUB-SECTOR IN KENYA

1. Inadequate funding for road development, rehabilitation and maintenance has been a great challenge in Kenya. This is evident from the backlog of undone, unfinished and poorly maintained roads.

i) In your opinion, what are the reasons for the inadequate funding?

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ii) Apart from funds allocated by the Ex-chequer, what other sources of funding are at your disposal?

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2. In Kenya, political interests at times interfere with the running of Government/Public Institutions.

i) How has political interests influenced your Organisation?

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ii) What rationale is used by the Ministry of Roads/Agent in prioritising roads on Construction/ Rehabilitation programmes? Briefly explain

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iii) What action steps has the Ministry of Roads/Agent taken to minimise political interference in exercising its mandate?
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3. Staff remuneration under the Terms and Conditions of The Civil Service is unattractive compared to that of the corresponding rank in the private sector. As a result, many competent civil service professionals may opt to seek greener pastures elsewhere in the private Sector. What has your organization done to address the challenge of poor remuneration? Briefly explain.

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4. The Ministry has undergone change in terms of institutional framework. It has recently established three authorities i.e. Kenya National Highways Authority (KeNHA), Kenya Rural Roads Authority (KeRRA) and Kenya Urban Roads Authority (KURA).

- i) Please, comment on the organisational capabilities of the Ministry of Roads before establishment of the three institutions i.e. KeNHA, KeRRA and KURA.

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- ii) What were the reasons for establishing these institutions under the Ministry of Roads?

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- 5. A road is a public good and therefore, construction of roads is deemed to be the responsibility of the Government. How is your organization involving the private sector in funding and managing roads? Briefly explain

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- 6. Axle Load Control and enforcement is known to be an important tool to control traffic loading on our roads.

i) In your view, why is axle load enforcement a challenge?

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ii) What strategies has your organisation put in place to overcome the challenges?

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7. The Ministry of Roads is responsible for the overall management of roads in Kenya. The other related roads agencies, i.e. Local Authorities, Kenya Wildlife Services, and Kenya Sugar Board etc work closely with the Ministry of Roads.

i) Which policy or law guides the Ministry of Roads on how to link up with these other agencies so as to comply with road works specifications?

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ii) Are there operational and organisational relationships between the Ministry of Roads and the other road management agencies?

Yes ()

No ()

iii) If *Yes* in (ii), please explain the relationships and the guiding policy or law.

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If *No* in (ii), what has the ministry done to ensure the Agencies work in harmony with the Ministry of Roads to ensure quality workmanship?

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8. Road reserves have not been adequately protected due to encroachments by private developers. This has delayed road works and even made some road works be costlier than expected. What strategies has the Ministry of Roads now put in place to stop such encroachments?

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9. The use of modern technology is catching up in most public institutions including the Ministry of Roads. Road designs are no longer done manually but through use of computer softwares. How has your organisation supported the staff not conversant with these new technologies?

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10. Do you consider your Organisation responses to the challenges highlighted above adequate?

Yes () No ()

Briefly expand on your answer above.

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THANK YOU.