INFLUENCE OF STRATEGY IMPLEMENTATION FACTORS ON PERFORMANCE OF KENYA RURAL ROADS AUTHORITY

BY

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR THE DEGREE OF MASTER IN BUSINESS ADMINISTRATION

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DECLARATION

This project is my original work and has not been submitted for a degree in any other university.

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This project has been submitted for examination with my approval as the University Supervisor

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ACKNOWLEDGEMENT

I would like to express my sincere appreciation to my supervisor, Dr. S. Ntongai for his guidance on this project proposal. I further thank my wife Mrs. Violet Akinyi Obuya for her encouragement and support.

DEDICATION

This work is dedicated to my late father Mzee Marius Kundu Sibocha and my beloved family

ABSTRACT

Kenya Rural Roads Authority (KeRRA) is a road agency vested with the responsibility of management, development, rehabilitation, and maintenance of rural roads. However, the Authority has not adequately accomplished its objectives due to challenges such as inadequate funding, cost and time overruns, poor and inadequate road network, political interference, delayed payments, and inadequate supervision as per World Bank Report of 2017. The Authority has attempted to overcome these challenges through adopting Public Private Partnership (PPP) and Performance Based Contracting (PBC) models, Provision of Supervision Consultants, Infrastructure Bonds, restructuring, and capacity building but with little success. Theoretical literature suggest that strategy implementation factors have a potential to increase organizational performance. There is currently no study that has investigated the relationship between strategy implementation factors and the Authority's performance. Furthermore, research on the dynamics of strategy implementation in the public sector is still in its infancy as most studies conducted either focused on the problems in implementing strategies or on the key attributes of successful strategy implementation. Consequently, studies on strategy implementation and organizational performance in a public sector context has not been fully explored. Therefore, the purpose of this study is to establish the influence of organizational structure, resource allocation and environmental uncertainty as facets of strategy implementation on performance of Kenya Rural Roads Authority. The study was guided by Resource Based, Survival Based and Contingency Theories in a correlation research design. The study population constuted 47 respondents comprising of Engineers (KeRRA's Regional Directors). A total sample of 37 respondents was selected using saturated sampling techniques. Pilot results with N=10, showed reliability test of a Cronbach's Alpha coefficient between 0.701 and 0.948. Validity was established through expert review. The findings revealed that strategic implementation factors such as organization structure, resource allocation and environmental uncertainty collectively accounted for 77% *(R^2 =0.770, p=0.000)* variation in performance at KeRRA. It was further revealed that dimensions of Organization structure *(B = 0.279, p= 0.024),* Resource Allocation *(B=.234, P=0.007)* and environmental uncertainty *(B = 0.439, p= 0.000)* all had significant positive influence on performance. This implies that all the three dimensions of strategy implementation factors can directly influence the performance at KeRRA. The study concludes that organization structure, resource allocation and environmental uncertainty are all critical antecedents of organizational performance. Therefore, the study recommends to the management of KeRRA to give more prominence to strategy implementation factors such as: organization structure, resource allocation and environmental uncertainty as they are positively associated with organizational Performance. The results of the study can be useful for the policy makers at KeRRA on the best approach of strategy implementation along its three dimensions of structure, resource allocation and environmental uncertainity. To the Academia, the study added new knowledge on strategy implementation practices.

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ABREVIATIONS AND ACRONYMS

KeRRA:	Kenya Rural Roads Authority
PBC:	Performance Based Construction
Gok:	Government of Kenya
PBO:	Parliamentary Budget Committee
NCA:	National Construction Authority
EBK:	Engineers Board of Kenya
MoTIHUDPW:	Ministry of Transport, Infrastructure, Housing, Urban Development & Public Works
RSIP:	Road Sector Investment Plan
DoI:	Department of Infrastructure
MTP III	Third Medium term Plan
RBT:	Resource Based Theory
DCT:	Dynamic Capabilities Theory
GDP:	Gross Domestic Product
ADB:	African Development Bank
PPP:	Public Private Partnership
LVSR:	Low Volume Sealed Roads
PEU:	Perceived Environmental Uncertainty
MAS:	Management Accounting Systems

OPERATIONAL DEFINITION OF TERMS

Strategy: a system of finding, formulating, and developing a doctrine that will ensure long-term success if followed faithfully

Strategy Implementation: a dynamic, iterative, and complex process comprised of a series of decisions and activities by managers and employees, affected by several interrelated internal and external factors to turn strategic plans into reality to achieve strategic objectives

Third Medium Term Plan: A development agenda aimed at advancing socioeconomic development through the 'Big Four' by moving the economy to high growth trajectory 10 per cent per annum economic growth rate by end of 2018-2022 period.

Vision 2030: Kenya's development blueprint (2008-2030) with the objective of achieving an industrialized middle-income status with high quality life for all citizens by the year 2030 on sustainable economic rate of 10 per cent per annum, social and political pillars.

Big Four Agenda: A development strategy towards accelerated growth of economy through increased food security, health care, manufacturing, and affordable housing.

Sustainable Development Goals: Total of 17 United Nations Sustainable Development Goals (SDGs) agreed upon by the international community and aimed at enhancing the quality of life of the world's citizens.

Africa Agenda 2063: A collective vision and roadmap for social economic transformation of the continent by the year 2063.

Environmental uncertainty: a function of the level of increase in environmental dynamism and complexity and how the external and internal context affects the strategy implementation process

Organizational structure: refers to the way the work needed to accomplish organizational mission is spread across its workforce.

Resource allocation: refers to how an organization's available resources that is capital, operating and human resources are aligned with its strategic vision and priorities.

Organizational performance: is the ability of an organization to utilize its resources efficiently and to generate outputs that are consistent with its goals and objectives and relevant for its clients and stakeholders

Efficiency: the ability to produce the desired outcomes by using as minimal resources

Effectiveness: the ability of employees or organization to meet the desired objectives or target

Centralization: the extent to which decision making is concentrated at one unit point in an organization

Decentralization: refers to low power density or lower decision-making alternatives at one center of an organization

Formalization: the extent to which explicit rules, regulations, policies, and procedures govern organizational activities

Coordination: the harmonization of different organizational elements towards objective realization.

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CHAPTER ONE

INTRODUCTION

1.1 Background

Strategy can be defined as a mechanism of finding, formulating, and institutionalizing a system that provides enhanced success once adhered to. Strategy implementation is the process of putting into practice strategies to enable resource utilization towards opportunities in a business environment. It is a process comprising of decisions and activities executed and governed by various factors towards organization objectives (Yang Li et al., 2008). Miller's study in 2002 shows a 70 percent failure in organization implementation of new strategies. A parallel study has showed that strategic plans exacting 40-60 per cent are not achieved as result of poor planning and implementation (Mankins and Steele, 2005). Strategy implementation is influenced by the following factors, namely: formulation, organizational leadership, organization structure, resource allocation, organizational culture environmental uncertainty, communication, commitment, and shared understanding.

Organizational culture can be viewed in dimensions of goal, work orientation, employees, culture, and professionalism towards performance (Kamaamia, 2017). It is important to align the culture of the organization with organizational strategies. Communication enhances strategy implementation and enable training, knowledge dissemination and learning. Management should provide for measures where staff members understand the strategic vision and mission and what their corresponding role. Another factor of importance is staff commitment that propels decision makers to action. As seen from the McKinsey 7S model of strategy implementation, there are seven factors affecting strategy implementation namely, strategy formulation, systems, structure, style, staff, shared values, and style. Most of these factors have been assessed with respect to financial performance of firms. However, there has

been little investigations on the influence of these factors on organizational non-financial, non-profit-making performance. In view of the forgoing, the current research endeavors to look at the influence of strategy implementation factors in the dimensions of environmental uncertainty, organization structure and resource allocation on performance of Kenya Rural Roads Authority which is a nonprofit public institution.

In defining environmental uncertainty, Johnson & Scholes, 1999 noted that it is concerned with the dynamism and complexity of the environment and its influence on strategy implementation. When the environment is dynamic there will be change in environmental variables involving customers, technology, demand and supply, resources, and competition. Examination of the relationship between the environment and strategy implementation considers characteristics of the environment defined through different levels of uncertainty and the organization's readiness to interpret environmental influences by scanning and data analysis. Conditions responsible for environmental chance are varied and therefore organizations are required to be alert and accept and adjust in line with environmental changes. This study will investigate how environmental uncertainties affect strategy implementation at Kenya Rural Roads Authority.

Organizational structure shows work accomplishment specialties and arrangement towards organizational mission in relation workforce. It is important that organizations develop necessary structures that can assist them in implementing organizational strategies (Lumpkin, 2003). It provides the framework that allows for strategy implementation (Stock, Greis and Kasarda, 1999). A good relationship between strategy and structure is essential for implementation of business strategies (Noble, 1999b). A study by Gupta, (1987), which examined the connectivity in strategy implementation and organizational structure showed

that decentralized structures are more effective than centralized ones. Schaap, (2006), shows that when the organizational structure is adjusted in accordance with strategy there is a likelihood of successful strategy implementation. Tall organization structures lengthen the chain of command. This kind of structure is characterized by a distribution of power that leads to a more bureaucratic and authoritarian system (Janićijević, 2017). An organization is required to set goals and choose a structure that will enable it to achieve them. Harmonization of structure and strategy provides necessary ingredient to the implementation of strategy to produce good performance (Child, 2015; Donaldson, 2012; Zakrzewska-Bielawska 2016).

Resource allocation is the process of distributing resources to achieve the objectives of an organization (Chen, 2002). Willingness to shift resources in support of strategic change is critical to strategy implementation process. A successful strategy implementation process should be related to available resources in order not to develop a big resource gap. Henry, 2008, shows that whereas availability of resources is necessary, left alone resources cannot be useful to an organization unless there is a configuration for organizational competencies. Resources are those inputs that facilitates the functional process of an organization. In a study by Bozeman and Straussman, (1990), resources are classified into personnel, structure, and finance.

Russo and Fouts (1997) resources can be classified physically, technologically, human resources, capabilities, reputation, and political prowess. Additionally, Fry, Stoner and Hattwick, (2004) provides for finances, human, materials, and information. Also, Lee in a study in 2009 showed that resources can be grouped as administrative, physical, human, financial, political, and reputation. This study will focus on influence of resource allocation on how strategy is implemented by Kenya Rural Roads Authority with respect to financial resources in the dimensions of financial, physical, and human resources.

Organizational performance concerns the organization's efficient utilization of resources towards mandate realization (Ezigbo, 2011). Analysis of organizational performance considers variables such as efficiency, effectiveness, customer satisfaction, accountability among others, visualized in financial or non-financial terms. Financial performance is viewed in terms of organizational sales and profits against financial leverages. Non-financial performance is normally gauged on customer satisfaction, efficiency, safety, effectiveness, and delivery time. This study will consider non-financial performance judged upon effectiveness and efficiency in realization of KeRRA's mandate.

Some State Corporations are strictly designated as service providers to the citizenry where performance is gauged in non-profit indicators. Such organizations, as is KeRRA are considered performing organizations if they both meet their goals within reasonable resource parameters. Since KeRRA is a public organization towards service delivery the indicators of performance have got no correlation to profit making. Major concern is on the effectiveness and efficiency towards achievement of its mission.

1.2 Problem Statement

According to the Kenya Roads Act, 2007, Kenya Rural Roads Authority is a State Corporation within the State Department of Infrastructure under the Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works (MoTIHUDPW). It is concerned with management, development, rehabilitation, and maintenance of roads in rural Kenya. However, the authority has not been consistent in meeting its objectives due to challenges such as inadequate resource allocation, inadequate contractor experience, delayed certification and payment of works, project cost and time overrun, political interference, poor

quality control, lack of contactor motivation and increased agency risks (World Bank, 2017). Between 2016 - 2020 the Authority planned and procured 8,841.6 kms of roads to be upgraded to bitumen standards (KeRRA, 2018). By close of the 2020/2021 Financial Year only 4208 kms of bitumen standard roads had been achieved with revised completion dates (KeRRA, 2021). This has caused delayed completion, cost escalation from claims on idle human and physical resources, and interest on delayed payment. KeRRA's Strategic Plan 2018 – 2022 provided for expansion of citizen contracting capacity through provision of 12 no. supervision consultants by 2020, adopting performance-based road maintenance (PBRM) strategy and construction using Public Private Partnership Model to achieve 700 kms and 68 kms respectively by 2021 and provision of Infrastructure Bonds. These strategies are yet to be implemented. The 2020/2021 Project Implementation Progress Reports indicates that the Authority has sustained a Kshs. 40 billion pending bills accrued from certified works (KeRRA, 2020). The Authority has undergone restructuring both at the headquarters and regions with focus on centralized structure to improve performance. Further, GoK has moved to build the capacities of the National Construction Authority (NCA), Engineers Board of Kenya (EBK) and the Ministry for effective monitoring and evaluation of strategy implementation. It has also increased stakeholder participation in roads sector implementation (MoTI, 2010). Despite these interventions, the Authority has not successfully ensured accessibility and mobility in the rural Kenya. Theoretical literature suggest that strategy implementation factors have a potential to increase organizational performance. There is currently no study that has investigated how performance is related to strategy implementation factors. Consequently, studies on strategy implementation and public sector performance have not been fully explored. The purpose of this study is to establish the influence of organizational structure, resource allocation and environmental uncertainty as dimensions of strategy implementation on performance of Kenya Rural Roads Authority.

1.3 Research Objectives

1.3.1 General Objective

The main objective was to examine the influence of Strategy implementation factors on performance of Kenya Rural Roads Authority.

1.3.2 Specific Objectives

i. To assess the influence of organizational structure on performance of the of Kenya Rural Roads Authority

ii. To establish the influence of resource allocation on performance of Kenya Rural Roads Authority

iii. To assess the influence of environmental uncertainties on performance of Kenya Rural Roads Authority.

1.4 Research Hypothesis

The following hypothesis were tested

H_{01} : Organizational structure has got no influence on performance at Kenya Rural Roads Authority

H_{02} : Resource allocation has got no influence on performance of Kenya Rural Roads Authority

H_{03} : Environmental uncertainty has got no influence on performance of Kenya Rural Roads Authority

1.5 Justification of the Study

Governments take responsibility for how taxpayer's money is spent as citizens demand efficiency and effectiveness from government expenditure. It is necessary to determine Road sector performance in the context of road network distribution, road user benefits, contract cost, contract period, accessibility, and road durability. The Roads sector is significant towards achievement of national development agenda which includes the Kenya Vision 2030, Third Medium Term Plan (MTP III), Big Four Agenda, Africa Agenda 2063, and the universal Sustainable Development Goals (SDGs). KeRRA's role as an enabler to the national development agenda is deficient hence the need for cause-effect investigation. An assessment of the influence of the strategic implementation factors on performance of KeRRA is a necessary investigation to the challenges facing the Authority with a view to effective and efficient delivery of the National Development Agenda.

This study can assist the Government to formulate strategies that can enhance road transportation to reduce road user costs, vehicle operation costs and increase road safety by providing mobility and accessibility to help in poverty reduction and socio-economic development. Road agencies will be provided with awareness of key factors to be observed during implementation of road strategies. There will be advancement of knowledge in research and academia in addition to providing a foundation for further research.

1.6 Scope of the study

The study was conducted to establish the influence of strategic implementation factors on performance of Kenya Rural Roads Authority. It targeted the 47 regional units of the Authority comprising of Engineers, Accountants and Procurement Officers. It is expected that the study will take approximately 3 months to complete.

1.7 Conceptual Framework

Conceptual framework provides in diagram form an explanation of variables in a study. This is a layout that identifies the concepts to be studied and their related ability to change (Mugenda & Mugenda, 2008). The framework in this study adopted from Thompson and Strickland, 1996. The current conceptual model hypothesizes that strategic implementation factors, composing of three variables; organizational structure, resource allocation and environmental uncertainty affects performance dimensions such as effectiveness, and efficiency.

Chin et. al., 2014, Pearce & Robinson, 2003, identifies variables such as macro-environmental, demand and supply and technology to constitute environmental uncertainty. The variables of Organization Structure include formalization (Pearce & Robinson, 2009), centralization (Shafaee et. al., 2012), and coordination (Martinez-Leon & Martinez-Garcia, 2011), among others. The constructs of resource allocation include financial, Human and Physical resources (Russo & Fouts, 1997)

STRATEGY IMPLEMENTATION FACTORS **PERFORMANCE**

(Independent Variables) **(Dependent Variables)**

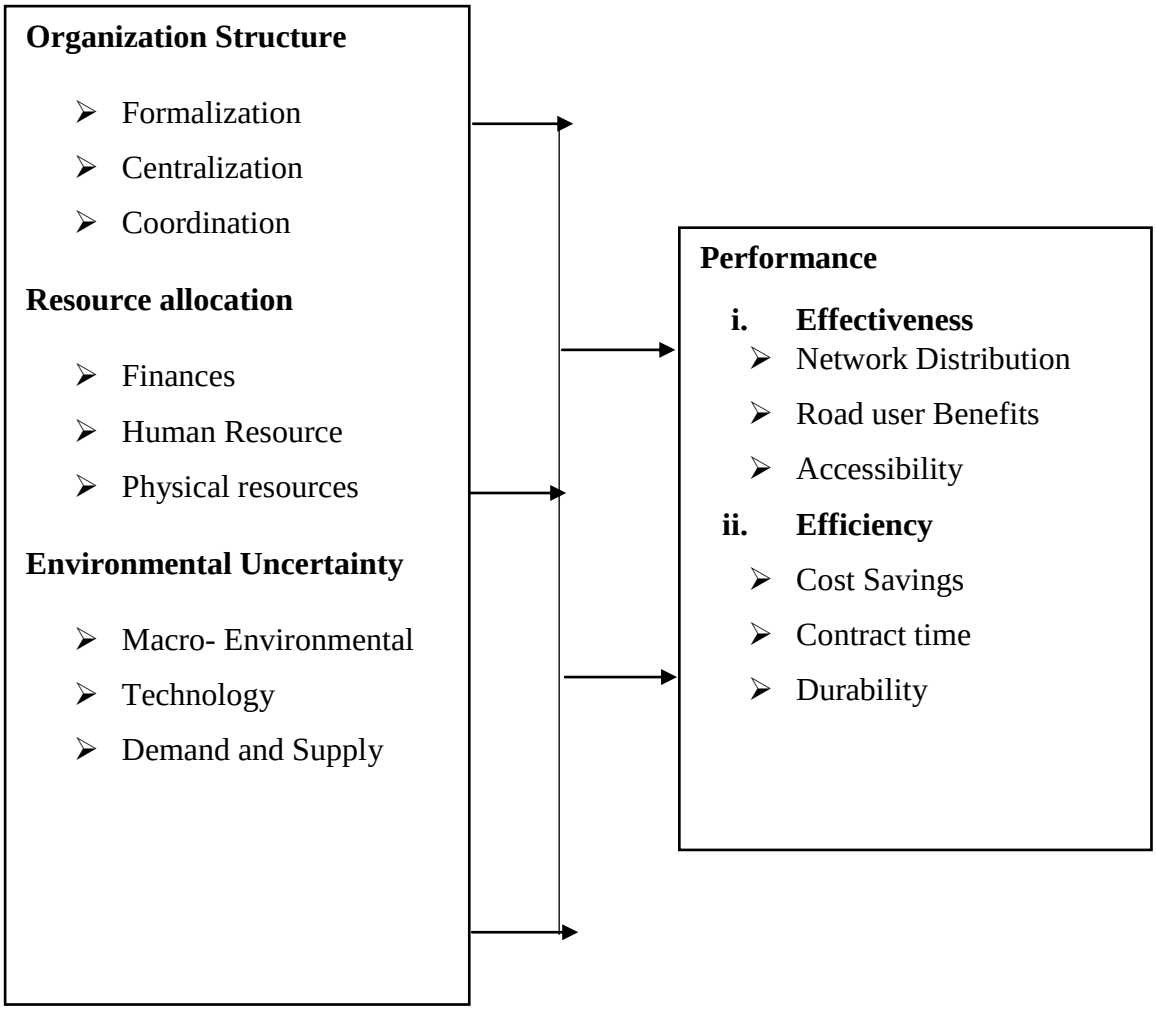

Figure 1.1: Conceptual Framework

Source: Adapted from Thompson & Strickland,1996, Modified by Author

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature related to influence of strategy implementation factors on performance. It is about theoretical review of the study under which resource-based, Contingency and Survival based theories of management are considered. It also considers empirical literature which aims at identifying knowledge gap for the specific objectives.

2.2 Theoretical Literature

The study is anchored in three relevant theories; resource-based, Survival based and Contingency theories of management.

2.2.1 Resource Based Theory (RBT)

The Resource Based Theory was initiated by Penrose (1959), Chandler (1962), among others The theory highlights the significance of organizational resources in performance. This theory stipulates a framework upon which competitive advantage inside the organization vide resources is realized and its related sustainability (Penrose, 1959; Pearce et al., 2012). It emphasizes that different kinds of resources affect organizational performance differently. Various scholars have showed that resources which are valuable, and rare, propel the organization to sustainable competitive (Peteraf, 1993; Eisenhardt & Martin, 2000). Resource based theory is considered in this study to assess whether resource allocation has a significant influence on performance at Kenya Rural roads Authority.

2.2.2 The Survival –Based Theory

According to Khairuddin, (2005) this theory originated with Herbert Spencer. Survival based theory posits that organizations should persistently adapt to its dynamic environment to survive. The theory argues organizations must change with the environment to survive. Internal conditions such as effectiveness and efficiency are key strategies towards survival. Whereas some studies have showed that organizations must select a set of strategies that lead to efficiency, this management theory emphasizes that an organization's environment is not static but dynamic through the strategy implementation process (Pearce and Robinson, 2003). According to this theory, if the organization will not adopt to the dynamic environment and become inefficient, it simply will not survive. This adaptability will assist the organization to better manage the link between the competing demand of different stakeholders. The Survival based theory is related to this study in in assessment of the influence of environmental uncertainty on performance at the Kenya Rural Roads Authority.

2.1.3 Contingency Theory

This theory holds the view that there is no specific and best way to manage organizations. It suggests that since there is no universally acceptable approach, it is incumbent upon organizations to work out strategies that fits the condition or situation currently faced by the organization. It originated in the 1960s following studies of Chandler (1962) and others. Its philosophy is hinged on fact that organizations seek effectiveness by fitting its characteristics on contingencies influencing its operations and existence. The theory emphases that given a particular organization with a specific strategy there will be varied outcomes depending on situational variables that comprise dynamics of the internal and external environment (Khairuddin, 2005). Contingency theory is considered in this study to establish whether both

environmental uncertainty and organizational structure have significant influence on performance at Kenya Rural roads Authority.

2.2 Concept of Strategic Implementation Factors

Strategy implementation is the process of putting into practice strategies to enable resource utilization towards opportunities in a business environment. It is a process comprising of decisions and activities executed and governed by various factors towards organization objectives (Yang Li et al., 2008). Management is required to ensure focus on how strategies are implemented to avoid bottlenecks causing failure. Various factors influence the process of converting strategic plans into organizational action. Studies show that there is failure in 50% - 80% efforts of implementing strategies. (Jonk & Ungerath, 2006; Atkinson, 2006).

A study by Egelhoff, (1993), investigated the relationship between strategy formulation and best time to commence implementation. Zaribaf and Bayrami, (2010), in their study showed that regardless of how good a strategy is formulated, it is not helpful if not implemented well and that many managers spend more organizational resources formulating strategies without focusing on strategy implementation. It's not uncommon for companies to change strategies with respect to emerging trends (Zaribaf and Bayrami, 2010).

Scholarly works of Ashkenas & Francis, 2000; Beer & Nohria, 2000; and Cater & Pucko, 2010, provide good reasons why the process of formulating and implementing strategies is important. Experience shows that implementation requires more effort than formulating a strategy. In strategy formulation one requires leadership skills, good planning, and organizing skills organizational authority and power, while strategy implementation will involve creativity, understanding and assessment of opportunities strengths of the organization. There are various factors that influence strategy implementation process. These are related to both

internal and external considerations for the organization and related to a particular strategy. A successful implementation process starts with identification of relevant factors on whose organizational performance relies. Following this consideration, organizational structure, resource allocation and environmental uncertainty factors have been identified for this study.

2.2.1 Concept of Organizational Structure

Organizational structure is a group of people joined with a focus to achieve a particular purpose (Akande & Ojokuku, 2008). The purpose of an organization structure is to specify tasks to be carried out, how to carry out the jobs, expected standards of performance and harmonized authority channels. As indicated by Robins, (2005), Organizational structure is how division, grouping, and coordination of job tasks is defined. Organization structure is extremely important in an organization as it ensures maximum coordination and proper utilization of resources, providing for work planning, growth, and enhanced innovation.

Chegini et al., (2013), identified organizational structure elements as comprising of complexity, formality, and concentration while Teixereira et al., (2012) provided the dimensions of an organization in terms of centralization, flatness, specialization, and horizontal integration.

Shafaee et al., (2012) defines centralization as the extent to which decision making is focused on a given area while less power concentration is referred as decentralization. The process of decision making, and information internalization is considered significant in organizational performance. Decentralized structures allow for employee participation in decision-making process, resulting in employee motivation while centralized structures may result in employee apathy (Robins, 2000).

Formalization is the extent to which power, responsibility, and decision making privillages are structured in the organization (Pearce and Robinson, 2009). Project based structures are highly formalized with clear and bureaucratic decision making. Such structures are identified by different levels with a top-down line of reporting. Coordination is the process of providing work division, work specialization and differentiation and provision of individual responsibilities. Decentralized structures are characterized by flat and horizontal profiles while centralized structures have high and vertical levels.

2.2.2 Concept of Environmental Uncertainty

Environmental uncertainty concerns elements of the environment that comprise the market, technology, and competition (Chin et al., 2014). Change in rate of consumer demands creates uncertainty in market environment however, the product development cycle is affected by consumer requirements (Liu, 2017). When this happens, companies are seen to produce products towards customer satisfaction (Lumpkin and Dess, 2001). This is important for company management since there could be a high rate of change of the customer preferences (Wang and Fang, 2012). In the road sector, the forces that influence supply and demand are demographics, economy, land use, and culture. Regions with high economic activities have attracted investment in road infrastructure than areas of less economic interest. Densely populated areas require a dense road network to ease traffic flow comparison to underpopulated areas.

Macro environment constitutes political, economic, sociological, technological, legal, ecological, and competition aspects. Aspect of political factors is seen in legal and regulatory parameters surrounding the organization’s operations. These can be in form of legislation, pricing policies and employee protection measures. Factors concerning economy can be view through national and international level of management of credit, availability of disposable

income, buying power, interest rates, inflation rates, and gross national product among others. As described by Ireland, Hoskisson & Hitt, (2011), economic environment determines status of the economy in which a organization operates. The social factors affecting an organization may be governed by beliefs, and people's lifestyles in the inside or outside the organization as natured from cultural, demographic, religious, educational, and ethical situations.

Technological advancement may influence the environment through new products and markets. Organizations should focus on embracing technological advancement affecting their business. When an organization is technologically uncertain, it is unable to anticipate features of its technological environment (Köseoglu et al., 2013). Such uncertainty makes the organization unable to respond to intense competition in the future, and fails to dragonize competitors' strengths (Long et al., 2014).

2.2.3 Concept of Resource Allocation

Various scholars have shown that possession and assignment of differing resources leads to variations in organizational performance in particular industry (Barney, 1991; Amit & Shoemaker, 1993). Elsewhere, it has also been argued that resource differences are unrelated to performance. It is evident that whereas certain organizations may possess a considerable resource base, its influence is rarely seen in performance. The economic consequences of managerial decisions being controlled by level of availability of organizational resources has been extensively studied (Grossman & Hart, 1986).

Researchers such as Talaja, (2012); Newbert, (2008); Cockburn, Henderson & Stern, (2000); and Pearce et al., (2012) have posited that organizational resources are of importance in performance more than any other factors. On the other hand, some researchers posit that resource differences are unrelated to performance. Some organizations possess large resource

base yet the same does not reflect in their performance (Chandler, 1962). Bozeman and Straussman's (1990), classification of organizational of resources involves personnel, finances, and organizational structure. According to Russo & Fouts, (1997), resources are the physical, technological, human, organizational strengths, and relevance in politics. Fry et. al., (2004), indicates that resources occur physically, materially, financially, and technologically. On the other hand, Lee, (2009), in a study classified resources administratively, humanly, financially, physically, and politically.

Hitt et. al., (2011), concluded that organization resources play a major role in competitive advantage. However, according to Tokuda, (2005), input of resources alone in the productive processes does not enhance performance. oftentimes, resources must be allocated responsibly to produce efficiency and effectiveness in the organization. The Dynamic Capabilities Theory (DCT) further emphasizes that provision of resources on itself does not propel the organization to advantaged performance (Teece et al., 1997). It follows therefore, that resources must pe properly utilized for greater performance. When the organization is unable to plan and utilize resources efficiently its performance will be poor (Helfat & Peteraf, 2003; Hitt et al., 2011).

The resource-based view is not, however particularly popular in public management (Karolina, 2014). The environment of public organizations tends to be turbulent, which results in politicization and consequent inability to predict upcoming changes on one hand, and on the other hand, complexity stemming from the existence of many stakeholders within public organizations with mutually exclusive expectations demanded to be fulfilled (Frączkiewicz-Wronka, Szymaniec 2014). Whereas resource allocation concept has an established position in strategic management theory, it does not give a lot of space in strategic

management of public organizations. This is because it focuses strictly on resources that feed the system, which works basically the same in both public and private organizations. On the other hand, public management focuses mainly on the results the organization achieves and such organizations are fundamentally different from the public and private sector (Klein, McGahan, Mahoney, Pitelis 2011). It is, however, difficult to agree with this approach as it brings down the whole Resource Based Theory only to the analysis of the resources, excluding the widely held view that resources recognized as strategic can improve performance of public organizations (Karolina, 2014).

Due to turbulence in management of public organizations the resource allocation is largely viewed in valuable, intangible and not perfectly imitable resources (VRIO condition) with more on knowledge and intellectual capacity (Barney, Clark 2007). Management of public organizations is turbulent, which makes the process of decision-making more difficult and thereby affects the performance of an organization (Boyne, Meier 2009). That is why, this study will assess the influence of resource allocation performance of KeRRA.

2.2.4 Concept of Performance

Organizational performance comprises variables that control effectiveness and efficiency. It involves work outcomes since it provides connection to strategic goals of an organization. Financial performance is viewed in terms of organizational sales and profits against financial leverages while non-financial performance is concerns variables such as customer satisfaction, efficiency, safety, degree of effectiveness, and delivery time. According to Ambro & Praprotnik, (2008), Customer satisfaction concerns the organization's ability to please its customers. Karunaratne & Jayawardena, (2010) have detailed how performance is related to customer satisfaction.

Since independence in 1963, several strategies have been implemented towards expansion and maintenance of the road network. These include the Construction to bitumen standards of the Primary trunk roads, Settlement feeder and minor roads, Labor based Rural Access Road Programs, Roads 2000 Strategy, Conventional Design upgrading to bitumen standards, Annuity programs, Public Private Partnership (PPP) Strategy and Roads 10,000 Kms Strategy. At independence in 1963 Kenya had approximately 45,000km of roads whereby 2,000km was paved and and the remaining was in earth and gravel status. The network, which had been developed to serve the commercial and agricultural interest of settler community, did not have geographical reach that could enable it to serve development objectives of people of independent Kenya (MoTI 2014). In 1960s, the government paid attention to upgrading of main highways system. Also, there were efforts to improve the primary road network to bitumen standards. The government also focused on improvement of feeder roads within the former settler areas (MoTI 2014).

In the late 1990s, the government shifted focus towards improvement of roads while creating employment to rural population. This was the Road 2000 Strategy (R2000) occasioned by need to bridge employment gap particularly in rural areas. The concept of R2000 was premised on three pillars namely, improving the rural network, creating employment, and using locally available materials. It was basically a labour-based approach and attracted a lot of donor support. The strategy was mainly a gravelling programme until 2011 when a pilot programme was undertaken in Murang'a County to upgrade short road sections to bitumen standards using labour intensive methods. This was necessitated by depletion of natural gravel material in high rainfall areas with higher traffic volumes thus need to seal the gravelled sections to increase lifespan of roads by reducing gravel loss due to attrition and weathering. Implementation of the above strategies enabled government to increase paved

road network from 2,000 km in 1963 to approximately 14,000 km in 2014. The unpaved network also rose from 45,000 km to over 140,000 Km (MoTI, 2014).

In 2000, the government commenced an ambitious Strategy aimed at upgrading 10,000 km of new roads in the country through PPP on Annuity Financing Mechanism. However, this approach involving extensive consultations with various players proved lengthy, bureaucratic and time consuming. Further, what the government envisaged that reducing construction costs could not be achieved because of risk factors from financing institutions were high. The failure of PPP program saw the introduction of Low Volume Sealed Roads (LVSR). The design of LVSR provided alternative pavement options suitable for low-trafficked roads in rural areas. Further, the program is managed under PBC. The purpose of LVSR is to open rural areas, decongest major towns, and promote domestic and regional connectivity. GoK further took cognizance of the need to provide access, regional equity, address regional infrastructure imbalance, stakeholders' consultations, and other socio-economic development trends proposed under the Constitution of Kenya 2010 as well as in the Kenya Vision 2030 economic blueprint (KRB, 2015). This was a paradigm shift in the road development initiative that was accustomed to a conventional approach both in design and construction.

2.3 Empirical Literature

2.3.1 Organizational Structure and Performance

Njiru & Nyamute, (2018), in their study on how Organizational Structure affects Financial Performance focused on Kenya's Commercial State Corporations. The study concluded that financial performance was affected by organizational structure and its complexity. It showed that the quantity of non-executive directors in the organization affected its performance. This study indicated that the presence of non-executive directors is a challenge affecting State Corporation's Boards because of their role in shaping commercial strategy. It proved that the

performance of commercial State Corporations is influenced by type, and size of the organizational structure. Decentralization which led to employee participation in decision making influenced their financial performance. This study did not however consider which structure was appropriate and most efficient for state corporations involved in short lived projects and that would be suitable for performance improvement in the road sector as will be examined by this study.

Folami and Jacobs, (2005) in their study examined how job performance was affected by joint task characteristics within the organizational context. The study used a sample from accounting firms in seven states of U.S.A. It used organizational inflexibility together with environmental uncertainty to check the context of the organization internally and externally respectively. The results indicated existence of a joint effect of task characteristics and perception of environmental uncertainty on job performance. This study did not consider the road transport sector provided the high interest in its performance by the government and other stakeholders and the task characteristics of road professionals in project execution.

Eze, Bello and Adekola, (2017) in a study titled "The effect of organization Structure on Performance of Organizations", in Covenant Micro Finance Bank in Nigeria using qualitative design and applied mono method established that organizations are run within written rules to be adhered by all the staff. This is the principle of formalization, being an indispensable management tool. That goals must be specified and means of achievement provided together with resource allocation provisions. This study failed to identify pitfalls of standardization of work which is brought about by formalization. The current study endeavors to show that standardization is not a perfect tool all the time for employee's performance, especially road sector.

Ogbo et. al., (2015) investigated how Performance is affected by structure with a sample from Technical and Service Firms in Nigeria. This research concluded that in a decentralized organization there will be improved decision making, productivity will be affected positively and negatively by task routine, and improved efficiency. The study recommended adoption of decentralized structures in technical and service firms to enable lower-level managers to participate in improvement of decision making. Combination of elements of both task routine and variety in employee management for carrying out tasks will enable the organization to benefit from task assignment. This study showed that it is advantageous for organizations to keep a shorter span of control for individual manager's effectiveness considering personal abilities. The study focused on private technical and service firms. There is need to focus on public firms offering technical services as will be assessed in the current study intents to fulfill.

Chandler, (1962), revealed that the organizational strategy informs the structure to be adopted. This finding was latter supported by Zaribaf and Bayrami (2010) who established that in most cases top management is concerned with strategy formulation followed by implementation by middle-level managers. These studies focused on profit making organizations but not nonprofit making public entities to be considered in current study.

From the foregoing empirical studies, the concept of organizational structure and its resultant effect on firm performance is widely studied in different contexts. For instance, Njiru and Nyamute, (2018) concluded that organizational structure and complexity affected commercial state corporations' financial performance. Folami and Jacobs, (2005) examined how joint task characteristics and organizational contextual variables affected job performance, using a sample from U.S accounting firms in seven states. In Nigeria, Ogbo et. al., (2015), while

examining the relationship between structure and performance of Technical and Service Firms concluded that in a decentralized organization there will be improved decision making, productivity will be affected positively and negatively by task routine, and improved efficiency. Chandler, (1962), revealed that the organizational strategy informs the structure to be adopted. This finding was latter supported by Zaribaf and Bayrami (2010) who established that in most cases top management is concerned with strategy formulation followed by implementation by middle-level managers

The reviewed studies are limited in many ways. The study by Njiru & Nyamute, (2018) did not for instance consider which structure was appropriate and most efficient for state corporations whose performance measure is nonfinancial indicators such as efficiency and effectiveness. The study by Folami and Jacobs, (2005) is limited as it did not consider the road transport sector provided the high interest in this sector's performance by the government. Similarly, Ogbo et. al., (2015) did not focus on public firms offering technical services such as the case of KeRRA. Chandler (1962) linked organizational structure to organization's strategies instead of organizational performance. Moreover, these studies (Nyamute, 2018; Folami & Jacobs, 2005; Chandler, 1962; Zaribaf and Bayrami, 2010) focused on profit making organizations but not nonprofit making public entities as in the case of the current study. Consequently, there is little knowledge on the effect of organizational structure and firm performance in the context of public sector particularly in Authorities like KeRRA.

2.3.2 Resource Allocation and Performance

Ongeti and Machuki, (2018) studied on how performance of Kenyan state corporations is relates to allocation of resources. The study showed that in State Corporations Resources

provide for 8.3 percent variations in performance. The study revealed that Capabilities have no independent statistically notable effect on performance. The study did not investigate the influence of government laws and fiscal policy to corporations' performance as this study seeks to investigate this factor.

Gitau, Abayo and Kibuine, (2020) investigated the extent to which performance of supermarkets in Nairobi County is influenced by resource allocation and strategy communication. The study concluded that resources positively influenced performance of these supermarkets. It was deduced that Nairobi City Supermarkets are adopting resource allocation as factor of strategy implementation. This study cannot be escalated to bureaucratic public institutions since Kenya Supermarkets are largely private entities.

Ismail et. al., (2012) considered the correlation between resources and competitive advantage in organizations. This research concluded that resources have positive influence on organizations' competitive advantage with a total variance in competitive advantage accounted for by the multiple linear regression (MLR) model at 56.2%. However, this study did not investigate how availability of natural resources affects strategy implementation as it will be assessed in this study.

In a research based on a survey questionnaire sent to employees of public libraries, Chan, 2006, strived to identify resources and competences that enable public organizations to achieve better results. This research indicated communication, interpersonal, technical planning skills, creativity, innovation, leadership being resources improving performance. If an organization does not obtain satisfactory results, it should introduce a refinement in these competences among their employees.

Sandhu, et. al., 2011, coming from the assumption that knowledge is a strategic resource for organizations, used a questionnaire addressed to the employees of public organizations, to identify the barriers of knowledge sharing within organizations, as well as possible actions to encourage this type of behavior. The results of the research showed that employees believe that knowledge sharing is conducive to improving the competitiveness of the organization. At the same time, they pointed to the lack of a proper knowledge-sharing strategy within organizations, or failure to be presented with such strategy by the management, as one of the barriers to successfully implement this process.

Kogan et. al., (2017) investigated on how growth was affected by technological innovation and resource allocation. It was seen that proper resource allocation results to organizational efficiency. The study noted that there is difficulty in strategy implementation when resources are not properly allocated, hence negatively affecting performance. Whereas this study focused on use of technology in management, there was no element of engineering design technology as a resource and its application to improve organizational performance much as this study will consider.

Research by Chi & Bump, (2018), while assessing the resource allocation process at multilateral organizations centered on global health revealed that recipient countries are not able to influence the resource allocation processes. Availability of resources assists managers in identification of employee abilities and eventual effective allocation of duties. The implication of this is that managers can adequately supervise staff since deliverables have been specified in accordance with resources allocated resulting in employee morale boosting. Knowledge on resource allocation influence on performance in the infrastructure sector was lacking in this study and therefore will be address in the current study.

The concept of resource allocation and its resultant influence on firm performance is widely studied in many contexts. Ongeti & Machuki, (2018), confirmed a big relationship between organizational resources and performance. Gitau et. al., (2020) showed the positivity of resource allocation performance of supermarkets in Nairobi County. Ismail et. al., (2012) established the positive link between resources, capabilities and systems and related competitive advantage on organizations. From the study by Kogan, Papanikolaou, Seru and Stoffman (2017) the direct effect of resources on productivity and performance was established. The investigation by Chi & Bump (2018) on resource allocation processes at multilateral organizations centered on global health concluded that resource allocation helps managers in rating employee workload. Focusing on public organizations Chan, 2006, studied on resources in form of personal competencies that enable public organizations to achieve above-average results and Sandhu, et. al., 2011, assessed knowledge as a strategic resource for organizations, using a questionnaire addressed to the employees of public organizations. Both studies showed that employees personally believe that knowledge sharing is conducive to improving the competitiveness of the organization and that whereas tangible resources are not of prominent influence in public management, intangible resources and competencies like knowledge, creativity and interpersonal skills can improve performance.

Also, these studies had some limitations, notably; Ongeti & Machuki, (2018) did not investigate the influence of government laws, and fiscal policy to corporations' performance. Gitau et. al., (2020) study cannot be escalated to bureaucratic public institutions since Kenya Supermarkets are largely private entities. Ismail et. al., (2012) did not investigate on how availability of natural resources affects strategy implementation. Chi and Bump, (2018) focused merely on the processes of resource allocation rather than on its effect on organizational performance. Furthermore, some studies (Gitau et.al. 2020; Chi and Bump, 2018) reviewed concentrated their analysis of resource allocation and its resultant effect on

firm performance in other sectors such as Retail and Global Health sector with a different context from nonprofit public sector. Subsequently, majority of these reviewed past studies (Ongeti and Machuki, 2018; Gitau et. al., 2020; Ismail et. al., 2012; Chi and Bump, 2018; Seru and Stoffman, 2017) did not focus on resource allocation and firm performance particularly in public sector or road agencies such as KeRRA where nonfinancial indicators such as efficiency and effectiveness are crucial. Consequently, little is known on influence of resource allocation on performance of KeRRA.

2.3.3 Environmental Uncertainty and Performance

Research by McCabe, (1990), investigating how perceived environmental uncertainty (PEU) influenced performance in airlines and corrugated shipping containers producers using the Duncan (1972) PEU scale. It was concluded that better performance is linked to organizations that assess environmental uncertainty well as opposed to those that don't. This research centered on financial performance indicators from a private business sector. However, the environmental uncertainty's influence on nonfinancial performance was not investigated as will be in this study.

Elbanna & Elhwerai, (2012), researched on how performance was influenced by Environmental uncertainty and hostility and did not find relationship between the variables. However, negativity of environmental hostility on performance was established. Influence of government policy on performance of firms was ascertained. It was concluded that managers should be conversant with government policies affecting their organizational goals and be ready to take appropriate action. This action in turn may enhance organizational performance. The study did not show the extent of stakeholder involvement in decision making being a fundamental element in public organizations as will be examined in this study.

Gul et. al., (1993) studied the effect of environmental uncertainty and Management Accounting Systems (MAS) on small businesses and found that under high perceived environmental conditions, MAS information are necessary to enhance decision making and facilitate performance. Whereas in this study Accounting Systems were considered, the current study will assess how engineering software has affected performance in the road sector.

Aprisma & Sudaryati, (2018), assessed how Corporate Governance affects firm performance and emphasized the negativity of environmental uncertainty on organization performance. It was noted that the firm experiences financial pressure exerted by the external environment which will result to increased operating expenses and decreased financial performance. The study emphasized the need for operational efficiency from corporate governance organs to enable company's financial stability and reliable performance. The study largely concentrated on financial performance of corporate organizations. Contrastingly, this study will focus on non-financial performance of corporate organizations.

Environmental uncertainty has been confirmed as a significant factor upon which organizational performance depends. The study by Kafetzopoulos et al., 2019, assessed how environmental uncertainty moderate innovation dimensions and organization performance. In the research by Merschmann and Thonemann, 2011, how supply chain flexibility is linked to performance was discussed and Liu, 2017, considered the connection between intellectual and social capital on firm performance. Also, there have been studies by Nagarajan et al., 2013, considering moderation on supply chain flexibility, Darvishmotevali et al., 2020 concerning organizational creativity, Tang & Wang, 2017, on internal controls quality, while Arieftiara et al., 2017 and Huang et al., 2017, concerning tax avoidance.

These empirical studies confirm the environmental uncertainty concept and its resultant effect on firm performance is a subject widely covered by various scholars in different contexts. For instance, Elbanna, (2012) studied the moderation of this concept and hostility on organizational performance did not note any relationship between the two variables. Aprisma & Sudaryati, (2018) concluded that it has a negative influence on company performance. Gul et. al., (1993) studied the concept alongside computer usage and Management Accounting Systems (MAS) on small businesses performance and established that whenever there is high environmental conditions are perceived, MAS information is necessary to enhance decision making towards high performance. The concept of environmental uncertainty has been viewed as moderating factor to the organization's internal factors on performance. Kafetzopoulos *et al.*, (2019) got concerned with the moderation on innovation dimensions, while Merschmann & Thonemann, (2011), examining on supply chain flexibility and Liu, (2017), assessing moderation on intellectual and social capital.

Furthermore, the studies reviewed reflect several limitations, for example, study by Elbanna, (2012) did not consider Stakeholder involvement in decision making process. Similarly, several studies (Kafetzopoulos et al., 2019; Merschmann and Thonemann; 2011; Liu, 2017) ignored the direct influence of this concept as a factor of strategy implementation on organizational. Various studies (Nagarajan et al., 2013; Darvishmotevali et al., 2020); Tang and Wang, 2017; Arieftiara et al., 2017 and Huang et al., 2017) have examined the direct impact of environmental uncertainty within firms. The studies reviewed concentrated their analysis of environmental uncertainty in private sectors as opposed to public sector. Hence, none of the reviewed past studies (Kafetzopoulos et al., 2019; Merschmann and Thonemann; 2011; Liu, 2017; Nagarajan et al., 2013; Darvishmotevali et al., 2020); Tang and Wang, 2017; Arieftiara et al., 2017 and Huang et al., 2017) was keen on road agencies such as KeRRA. Consequently, little is known on the effect of environmental uncertainty on the performance of KeRRA.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter deals with research methodology used to address study objectives, outlining details of how the research will be conducted, and the justification of the methodology adopted.

3.2 Research Design

This section presents the framework, plan, structure and strategy for investigation and the conceived logical model suitable for obtaining responses to the research hypotheses. Its effectiveness is dependent on type of study and research objects (Mugenda, 2008). It focuses on the research questions, leading in selection of sources and types of information for the research (Cooper & Schindler, 2003). In this study a correlation study design was used. This was because correlation research can study a wide range of variables and their interrelations and enables use of inferential statistics (Mugenda and Mugenda, 1999). Correlation study design is hereby chosen because this study used inferential statistics to draw generalizations.

3.3 Study Area

There are 47 Counties in Kenya. The study concentrated to the KeRRA's on 47 County Administrative Centres. According to KeRRA's structure each county constitutes an administrative region. These are headed by Engineers. Besides the technical department, the regional offices also include supply chain management, Information technology and accounting departments. The function of the regional office includes but is not limited to preparing preliminary and detailed road designs, preparing road investment programmes; preparing, monitoring, and evaluating strategic plans, road sector investment programmes;

and supervision of road construction, rehabilitation upgrading, and maintenance. In this regard the regional offices staff are key informers regarding performance of KeRRA.

3.3 Target Population

Study population is an all-around described occasions which are being explored. Hinkle, Wiersma, and Jurs (2003) define population as all members of some defined group. This study targeted 47 respondents comprising of Engineers (County KeRRA Office Managers) involved in routine road project supervision. This population was suitable since it is involved in decision making that affects strategy implementation at the authority and have requisite knowledge in objectives and the authority's mandate. The targeted population is distributed in table 3.1 below:

Table 3.1 **Target Population**

Category	**Population**
Engineers	47
Total	**47**

Source: KeRRA Strategic Plan (2018-2022)

3.4 Sampling Procedure and Sample Size

A sample size is the number of respondents chosen from the population comprising a sample (Kothari, 2004). Due to small number of possible study respondents, the study adopted a saturated sampling technique to select final sample in which a total of 10 respondents were isolated and used for pilot study as part of reconnaissance survey. Thereafter, the remaining 37 respondents were targeted for the main study. Cooper and Schindler (2003), provides for a range of 10% subjects, not necessarily statistically selected. The pilot study was essential to pre-test the research instrument with a view to enhance the instrument's validity and reliability.

3.4.1 Data Collection Methods

3.4.2 Data Type and Sources

Study to collect both primary data and secondary data using pre-validated questionnaires and from newspapers, published books, journals, magazines respectively.

3.4.3 Data Collection Procedures

Before administration of the questionnaires the researcher appraised the respondents on the purpose and confidentiality of their responses. Thereafter, questionnaires are distributed to the respondents following the researcher's introduction to KeRRA by the University. Data collection process was enhanced by use of 5 trained field assistants by dropping the questionnaires, making follow up to collect or reminding the respondents to complete the questionnaires with a focus to 100% achievement.

3.4.4 Data Collection Instrument

Questionnaires are used by the researcher to collect data. Questionnaires are effective instruments because they allowed a response from each respondent that facilitates quantitative analysis. They save on time and cost of the research and can be analyzed more methodically and accurately. The study used self-administered structured questionnaire set in five sections, namely A, B, C, D and E dealing with demographics, organizational structure, resource allocation, environmental uncertainty, and performance respectively. A 5-Likert scale was used to rate staff's perception on various strategic implementation issues and their contribution towards performance.

3.4.5 Reliability of the Study Instruments

Reliability is the extent to which a measuring procedure provides same results over several repeated trials. Kothari, (2011), shows that reliability concerns consistency of results from measurement instruments. This was established using Cronbach's coefficient alpha test of internal consistency in checking results from the pilot study. To achieve this a pilot test was be done using 10 staff from the Authority. Cronbach's alpha indicated the extent to which a set of items could be treated as using a single latent variable. A score above 0.7 is reliable (Kothari, 2011).

The finding was indicated in Table 3.2.

Table 3.2: Internal Consistency of Scale

Constructs	**No. of Items**	**Cronbach's alpha**
1. Organization structure	10	0.871
2. Resource Allocation	13	0.948
3. Environmental Uncertainty		
Technology-	5	0.894
Demand and Supply-	6	0.886
Macro-environment	5	0.721
4. Performance		
Efficiency	7	0.765
Effectiveness	6	0.701

Source: Survey Data, (2022)

As shown in Table 3.2, the reliability test for all items yielded a Cronbach's Alpha coefficient of between 0.701 and 0.948. Since all items had alpha coefficient ($\alpha > 0.7$), then the scale was regarded as reliable for measuring the four main constructs of the study (Kothari, 2011).

3.4.6 Validity of the Study Instrument

Validity tests is the range to which a measurement is achieved to the desired extent. For purposes of this study's content validity, literature survey and expert judgment in research

methodology were used ensure that items are based on the study concepts. Therefore, two experts' strategic management scrutinized the instruments and offered expert advice on content validity. Also, advice from transportation infrastructure experts was sought and their views included.

3.5 Data Analysis Procedures

Data were analyzed using inferential statistics such as regressions to establish the effect of strategic implementation factors on performance. This regression model is given as:

$Y= \beta_0+\beta_1X_{1i} + \beta_2X_{2i}+ \beta_3X_{3i} +Ɛ$

Source: Adapted from Fairchild and MacKinnon (2009)

Where,
Y- Dependent variable- Performance
X_1- Independent variable Organizational Structure
X_2- Independent variable Resource Allocation
X_3- Independent variable Environmental Uncertainty
β_0 =Y intercept or constant in the equation
β_1 = measure of influence of Organization Structure on Performance
β_2= measure of influence of Resource Allocation on Performance
β_3 = measure of influence of Environmental Uncertainty on Performance
Ɛ - Is the error component.

3.6.1 Data Presentation

The analyzed data were presented using either tables, graphs or charts with explanation thereof.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This part is divided into two main sections. The first section addresses the descriptive aspects of the data such as the demographic characteristic of the respondents while the second part deals with the quantitative or inferential statistics. It basically shows the extent of the adoption of organization structure, resource allocation and management of environmental uncertainty, the observed relationship between these three variables and performance of KeRRA using direct entry regression techniques. Therefore, this chapter will address the specific objectives of the study.

4.2 Response Rate

Primary data was collected by means of self-administered questionnaires, of which out of 47 expected respondents, 34 of the questionnaires were completed, a response of 72.3 % which was deemed satisfactory. According to Sekaran (2008), a response rate of 60% is considered adequate for analysis in social science research. The response rate is summarized in Table 4.1 below.

Table 4.1: **Response Rate at the County level**

	Engineer
Number of Respondents Targeted in the Survey at the County	47
Actual Number of participants who took part in the survey at the County	34
Number of Non-responses.	13
Percentage response rate	72.3%

Source: Survey Data (2022)

4.2 Characteristics of Respondents

The gender summary of the respondents was indicated in Table 4.2. From the Table 4.2, eighteen (18) respondents were male representing a sample of 52.9 % of the total study population while sixteen (16) respondents were male with 47.1 % of the total population. This therefore means that there were slightly more male respondents than female respondents in the study area.

Table 4.2: Gender of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	18	52.9	52.9	52.9
Female	16	47.1	47.1	100.0
Total	34	100.0	100.0	

Source: Survey data (2022)

Table 4.3 below shows the distribution of sampled respondents based on the duration worked at the current workstation. According to the Table 4.3, majority of respondents (82.4 %) reported that they worked for a period of below 5 years. Similarly, 11.8 % reported that they worked for between 11-15 years. Only 5.9 % reported that they worked for between 6-10 years. This infers that most respondents in the study area have worked for a considerable long time at their current duty station.

Table 4.3: Distribution of Respondent Based on Number of years working in the current station

	Frequency	Percent	Valid Percent	Cumulative Percent
Below 5 years	28	82.4	82.4	82.4
6-10 Years	2	5.9	5.9	88.2
11-15 Years	4	11.8	11.8	100.0
Total	34	100.0	100.0	

Source: Survey data, (2022)

From the Table 4.4, majority of the respondent sampled have a strong relationship to the formal education. For instance, 61.8 % comprised Bachelor's degree holders while 38.2 % reported that they hold postgraduate degree. This means that the highest percentages of the respondents are degree holders and on the other hand the lowest percentages of the respondents are Diploma holders. This therefore imply that majority of the participants have acquired formal education and are well versed with the issues the study was interrogating.

Table 4.4: Distribution of Respondents based on Highest level of education

	Frequency	Percent	Valid Percent	Cumulative Percent
Degree	21	61.8	61.8	61.8
Postgraduate (Masters and PhD)	13	38.2	38.2	100.0
Total	34	100.0	100.0	

Source: Survey Data (2022)

Table 4.5 below shows the distribution of sampled respondents based on their age. According to the Table 4.5, majority of respondents (38.2 %) reported that fall within the age bracket of between 46-55 years. On the other hand, only 8.8 % reported that they are over 55 years of age. This infers about the population that most respondents who participated in the study are adult.

Table 4.5: Distribution of Respondents Based on Age of the respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
26-35 years	8	23.5	23.5	23.5
36-45 years	10	29.4	29.4	52.9
46-55 years	13	38.2	38.2	91.2
Over 55 years	3	8.8	8.8	100.0
Total	34	100.0	100.0	

Source: Survey Data (2022)

4.3 Extent of organization structure practices at KeRRA

In the study, while trying to address the study objectives, an attempt was made by the researcher to use descriptive statistics to address the extent to which organization structure practices was prevalent in at KeRRA. This is seen in Table 4.6.

Table 4.6: Descriptive Statistics for Organizational Structure

Statements	N	Min	Max	Mean	Std. Dev
KeRRA's mission is formally defined and pursued by all departments	34	3	5	4.15	.734
Levels of authority for each staff has been clearly identified	34	2	5	4.25	.830
Your role has been clearly identified and stated in the current organizational structure	34	3	5	4.46	.731
There are rules, procedures, and written documentation such as policy manuals and job descriptions that prescribe the rights and duties of employees	34	2	5	4.23	.724
Our organization's structure focuses on centrality in reporting	34	2	5	3.77	.932
There are formal reporting relationships within the organization's structure	34	3	5	4.20	.666
Decision making is done at the top	34	2	5	3.74	1.176
The system is designed to ensure effective communication, coordination, and integration of efforts across departments	34	2	5	3.97	.749
Activities of separate departments are integrated to accomplish organization goals	34	2	5	4.11	.793
Authority is grouped into departments which make up the organization	34	2	5	4.35	.694
Average	34			**4.123**	**0.8029**

Source: Survey Data (2022)

The results for descriptive statistics as shown in Table 4.6 above, with N = 34 as the total number of respondents indicate the following as the findings. Overall, practices relating to organizational structure have been reported to be prevalent in KeRRA to a high extent as shown by the overall mean value of 4.12 and a standard deviation value of 0.803. This therefore imply that organizational structure practices have been adopted or implemented to large extent at KeRRA.

4.4 Extent of Dimensions of Resource Allocation Practices at KeRRA

In the study, while trying to address the specific objectives, an effort was made by the researcher through the use descriptive statistics to establish the extent to which resource allocation was executed as part of strategy implementation factors at KeRRA. This is seen in Table 4.7.

Table 4.7: Descriptive Statistics on Resource Allocation at KeRRA

Statements	N	Min	Max	Mean	Std. Dev
Budgetary allocations	34	1	5	4.06	1.236
Disbursement of funds	34	1	5	3.91	1.071
Financial resource gap	34	1	5	3.78	1.111
Procurement of works	34	1	5	3.77	1.209
Contractor cash flow ability	34	1	5	3.75	1.238
Staffing levels	34	1	5	3.62	1.128
Staff incentives	34	1	5	3.43	1.172
Succession planning	34	1	5	3.26	1.278
ICT equipment and packages	34	1	5	3.52	1.213
Contractor plant and equipment	34	1	5	3.45	1.275
Financial managements programs	34	1	5	3.40	1.043
Road Maintenance and Management Systems	34	1	5	3.57	1.185
Office space and furniture	34	1	5	3.82	1.074
Average	**34**			**3.642**	**1.172**

Source: Survey Data, (2022)

The results for descriptive statistics as shown in table 4.7 above, with N = 34 as the total number of respondents indicate the following as the findings. Overall, the dimensions depicting elements of resource allocation as one of the strategy implementation factors were moderately prevalent as shown by the overall mean value of 3.64 and a standard deviation value of 1.172 at KeRRA.

4.5 Extent of Environmental Uncertainty

The researcher also attempted through the use of descriptive statistics to address the extent of environmental uncertainty as one of the factors affecting strategy implementation at KeRRA. This is seen in Table 4.8.

Table 4.8: Descriptive Statistics on Environment Uncertainty

	N	Min	Max	Mean	Std. Dev
Technology					
Technology in the construction industry is rapidly changing	34	2	5	3.62	.896
Technological Changes contribute to efficiency in construction	34	2	5	3.75	.919
Contract completion period can be affected by continued embracing of technology	34	1	5	3.32	1.251
Construction technology results to project cost savings	34	1	5	3.72	1.166
The Authority adopts emerging contracting methods	34	2	5	3.43	.984
Demand					
Feasibility studies are carried out before construction execution.	34	1	5	3.65	1.178
Road network distribution can be informed by human population density	34	1	5	3.72	.910
The type of responsive bidders determines road project success	34	1	5	3.49	1.062
Economic considerations	34	2	5	3.69	.934
Legal considerations	34	1	5	3.26	1.176
Social considerations	34	1	5	3.34	1.004
	34	2	5	4.17	.821
Macro-economics					
Availability of natural gravel material affect road construction					
Ecological conditions (rainfall, temperature, topography)	34	1	5	3.94	.950
Presence of foreign contractors affect KeRRA'S strategy implementation	34	1	5	2.94	1.059
Provision of alternative transportation systems (railway, air, water	34	1	5	3.17	1.167
Political factors	34	1	5	4.00	1.046
Averages	**34**			**3.58**	**1.03**

Source: Survey Data, (2022)

The results for descriptive statistics as shown in Table 4.8 above, with N = 34 as the total number of respondents indicate the following as the findings. Overall, the status of environment uncertainty as an element of strategic implementation factor have been reported

to be prevalent to a moderate extent as shown by the overall mean value of 3.58 and a standard deviation value of 1.03 at KeRRA.

4.6 Extent of organizational Performance at KeRRA

To facilitate performance of further statistical analysis that will establish the effects of the independent variables on dependent variable, the study also sought to establish the extent of performance at KeRRA along the two dimensions of performance namely: Efficiency and effectiveness. This was necessary as it will lay foundation for the subsequent analyses of relationship between organizational structure, resource allocation, environmental uncertainty and organizational Performance. The findings are in Table 4.9.

Table 4.9: Descriptive Statistics on Organizational Performance at KeRRA

	N	Min	Max	Mean	Std. Dev
Efficiency					
KeRRA delivers the road construction projects within the Contract price	34	2	5	3.98	.910
The Authority delivers its projects within the contract time	34	1	5	3.91	.879
Most projects encounter variations	34	1	5	2.80	1.175
Roads constructed by KeRRA are durable	34	1	5	3.89	.886
Management has relevant skills towards the objectives of the authority	34	1	5	4.32	.886
There is qualified workforce to execute the KeRRA's mandate	34	1	5	4.22	.893
Public Procurement and public finance regulations are adhered to at the authority	34	2	5	4.31	.769
Effectiveness					
There is adequate design and supervision for road construction	34	2	5	3.95	.779
There is adherence to Contract conditions and specifications	34	2	5	4.11	.732
There's increased accessibility and mobility in rural areas	34	3	5	4.20	.642
There are increased accidents on roads under the management of KeRRA	34	1	4	2.43	.918
There has been reduced road user costs due to improvement of rural roads	34	1	5	3.92	.924
The entire road asset is adequately functional	34	2	5	3.80	.642
Averages	34			**3.83**	**0.85**

Source: Survey Data, (2022)

The results for descriptive statistics as shown in table 4.9 above, with N = 34 as the total number of respondents indicate the following as the findings. Overall, the level of performance at KeRRA is at moderate level shown by a mean value of 3.83 and a standard deviation value of 0.85. This imply that the extent of performance at KeRRA is at an average level meaning it is yet to experiencing satisfactory performance along the two indicators efficiency and effectiveness. This further imply that a lot need to be done to achieve a desirable performance level at KeRRA.

4.7 Inferential Results

Inferential analyses were conducted to specifically ascertain the influence of the conceptualized strategy implementation factors on organizational Performance by testing the formulated hypotheses. The principal inferential statistic was the regression analysis that was intended to establish the influence of each determinant while holding the influences of the background variables under control. However, given that regression occurs when there is correlation, correlations were first conducted between each of the proposed strategic implementation factors and organizational performance to ascertain whether indeed a relationship existed before checking for the influence of the particular variable.

4.7.1 Correlation between Study Variables

Pearson's product moment correlations were used to examine whether there exists a relationship between the selected strategic implementation factors and organization performance. This was necessary since as noted by Tabachnick and Fidell (2013), regression can only be conducted after correlations have been confirmed. Table 4.10 below shows results for the correlation analysis.

Table 4.10: Correlation between Study Variables

	Org structure	Res. Allocation	Env. Uncertainty	Org. Perf
Org. Structure	1			
Resource Allocation	.344*	1		
Environ. Uncertainty	.491**	.426*	1	
Org. Performance	.682**	.628**	.648**	1

**Correlations Significant at the 0.01 level (2-tailed)

Source: Field Data, 2022

Table 4.10 above shows correlation between the study variables. Correlation analysis shows the direction, strength and significance of the relationships among the variables of study with correlation coefficients lying between -1 for a strong negative correlation, and +1 for a strong positive correlation (Sekaran, 2000). The results from the correlation matrix in Table 4.10 revealed that organization performance has a significant positive correlation with all the three dimensions of the selected strategy implementation factors. The association between organizational structure and performance r = 0.682, (p= 0.000) is positively moderate and significant at 95% confidence level. The association between resource allocation and performance r = 0.628, (p = 0.000) is positively moderate and equally significant, suggesting that there is a statistically significant positive association between resource allocation and performance. Similarly, the association between environmental uncertainty and performance r = 0.648, (p = 0.000) was found to be positive moderate and sufficiently significant at 95% confidence level.

4.8 Effect of Strategic Implementation factors on Organizational Performance

To actualize the study objectives, a regression analysis between the three dimensions of strategic implementation factors namely: Organization structure, resource allocation, environmental uncertainty and organizational performance was undertaken. The direction and

magnitude of influence or effect of each of the dimensions of strategic implementation factors on organizational performance was eventually established using the regression model whose findings were presented in Tables 4.11, 4.12 and 4.13.

Table 4.11 gives the model summary which shows that the proportion of variance in the organizational performance that is explained by the independent variables is 77% *(R^2 = .770, p=0.000).* The coefficient of determination (R^2 = 0.770) and the model is acceptable since the F-statistic is significant and suggests that the independent variables jointly influence the dependent variable. The value of Durbin-Watson is 1.658. Generally, the value of the Durbin-Watson statistic ranges from 0 to 4. As a rule of thumb, the residuals are uncorrelated if the Durbin-Watson statistic is approximately 2. A value close to 0 indicates strong positive correlation, while a value of 4 indicates a strong negative correlation. The computed value is also close to 2, which indicates the absence of serial correlation.

Table 4.11: Estimated Model of Organizational Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
	.878[a]	.770	.747	.25388	.770	33.550	3	30	.000	1.658

a. Predictors: (Constant), Organizational structure Mean score, Resource Allocation mean score, Environmental uncertainty mean score

b. Dependent Variable: Organizational performance Mean score

Source: Survey Data, (2022)

Table 4.12 shows ANOVA results of the estimated model. The data test revealed that F (3, 30) = 33.550 at p = 0.000, an indication that the model fits the research data well. The researcher can therefore, deduce that all the independent variables (i.e., organizational structure, resource allocation and environmental uncertainty) jointly explain organizational performance at KeRRA.

Table 4.12: ANOVA Results on Estimated Organizational Performance Model

Model		Sum Squares	of Df	Mean Square	F	Sig.
1	Regression	6.488	3	2.163	33.550	.000[b]
	Residual	1.934	30	.064		
	Total	8.421	33			

a. Dependent Variable: Mean score of Organization Performance

b. Predictors: (Constant), Mean score for Environmental Uncertainty, mean score for Organization structure, Mean score for Resource Allocation

The regression model was in the form $\mathbf{Yi=\beta o+\beta_1 X_{1i}+\beta_2 X_{2i}+\beta_3 X_{3i}+\varepsilon i}$ and by adding regression coefficient as was shown in Table 4.13. This was later transformed into:

$$\mathbf{Y= 0.132 + 0.279\ X_i + 0.234\ X_i + 0.439 X_i}$$ .....equation 4.1

$$\mathbf{R^2 = 0.770\ (77\%)}$$

Table 4.13: Coefficients of Independent variables

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	.132	.398		.331	.743	.680	.944		
Organizational Structure mean score	.279	.118	.268	2.375	.024	.039	.520	.602	1.660
Resource Allocation mean score	.234	.080	.292	2.911	.007	.070	.398	.759	1.317
Environmental Uncertainty Mean score	.439	.107	.499	4.115	.000	.221	.656	.520	1.922

a. Dependent Variable: Organizational Performance Mean score

Source: Survey Data (2021)

4.9. Establish the effect of Organization structure practices on performance of KeRRA

The first objective of the study was to assess the influence of organizational structure on performance of the of Kenya Rural Roads Authority. In this regards, practices of organizational structure were found to have a significant positive influence on organizational performance of KeRRA (B=0.279, *p=0.024*) thereby rejecting the null hypothesis $H_{o1,}$ which states that organization structure does not have a significant influence on performance of KeRRA. This means that a unit change in organization structure practices causes 0.279-unit change in organizational performance and the change is significant. This implies that organizational structure is a significant predictor of firm performance at KeRRA.

The finding that strategic organization structure exerts significant positive influence on performance at KeRRA has received some support from theoretical literature as well as past

empirical studies. For instance, the finding of the current study is like that of Njiru & Nyamute, (2018), who in their study on how Organizational Structure affects Financial Performance focused on Kenya's Commercial State Corporations revealed that the performance of commercial State Corporations is influenced by type, and size of the organizational structure. Similar finding was provided by (Eze, Bello and Adekola., 2017) in a study titled "The effect of organization Structure on Performance of Organizations". Ogbo et. al., (2015) concurred with the findings of the current study by concluding that in a decentralized organization there will be improved decision making, productivity will be affected positively and negatively by task routine, and improved efficiency and overall firm performance. Moreover, by examining how joint task characteristics and organizational contextual variables affected job performance, using a sample from U.S accounting firms in seven states, (Folami and Jacobs, 2005) concurred with the current study.

However, the past studies are not without limitations. For instance, (Njiru & Nyamute, 2018) did not consider which structure was appropriate and most efficient for state corporations whose performance measure is nonfinancial indicators such as efficiency and effectiveness. The study by Folami and Jacobs, (2005) is limited as it did not consider the road transport sector provided the high interest in this sector's performance by the stakeholders. Similarly, Ogbo et. al., (2015) did not focus on public firms offering technical services such as the case of KeRRA. Chandler (1962) linked organizational structure to organization's strategies instead of organizational performance. Moreover, these studies (Nyamute, 2018; Folami & Jacobs, 2005; Chandler, 1962; Zaribaf and Bayrami, 2010) focused on profit making organizations but not nonprofit making public entities as in the case of the current study. However, the current study made a significant milestone in term s of contributing to new knowledge by isolating and studying three main elements of organization structure namely:

Formalization, Centralization and Coordination and their resultant effect on organizational performance of public institutions, an area hitherto unexplored by past studies.

4.10 The Effect of Resource Allocation on Performance of KeRRA

The second objective of the study was to establish the influence of resource allocation on performance of Kenya Rural Roads Authority. In this regard, resource allocation practices were found to have significant positive influence on performance of KeRRA (B= 0.234, *p =.007*) thereby rejecting the second null hypothesis H_{02}, which states that resource allocation does not have a significant influence on performance of KeRRA. This means that a unit change in resource allocation will cause 0.234-unit change in performance at KeRRA and the change is statistically significant. This implies that resource allocation as an element of strategic implementation factor is a significant predictor of performance in the context of KeRRA.

The finding that resource allocation has exerted significant positive influence on organizational performance at KeRRA was concurring with some past reviewed theoretical literature as well as past empirical studies. For Instance, the result of the current study is similar with the finding by Ongeti and Machuki, (2018) who studied on how performance of Kenyan state corporations relates to allocation of resources revealed that in State Corporations Resources provide for 8.3 percent variations in performance. Similarly, the study findings agreed with (Gitau, Abayo and Kibuine, 2020) who investigated the extent to which performance of supermarkets in Nairobi County is influenced by resource allocation and strategy communication. The study concluded that resources positively influenced performance of these supermarkets. On strategic management of public organizations, the findings of this study compliment studies by Chan, (2006) and Sandlu et. al., (2011) which

indicated a positive significance of intangible resources such as knowledge and personal competencies on performance of public organizations. In addition, the current study is similar with (Ismail et. al., 2012) who considered the correlation between resources and competitive advantage in organizations and found that resources have positive influence on organizations' competitive advantage with a total variance in competitive advantage accounted for by the multiple linear regression (MLR) model at 56.2%. Similarly, the study finding concurred with Kogan et. al., (2017) investigated on how growth was affected by resource allocation and found that proper resource allocation results to organizational efficiency.

Although past studies have attempted to focus on the empirical link between resource allocation and organizational performance, majority of these studies had some limitations, notably; Ongeti & Machuki, (2018) did not investigate the influence of government laws, and fiscal policy to corporations' performance. Gitau et. al., (2020) study cannot be escalated to bureaucratic public institutions since Kenya Supermarkets are largely private entities. Ismail et. al., (2012) did not investigate on how availability of natural resources affects strategy implementation. Chi and Bump, (2018) focused merely on the processes of resource allocation rather than on its influencet on organizational performance. Furthermore, some studies (Gitau et.al. 2020; Chi and Bump, 2018) reviewed concentrated their analysis of resource allocation and its resultant effect on firm performance in other sectors such as Retail and Global Health sector which is a different context from nonprofit public sector. Subsequently, majority of these reviewed past studies (Ongeti and Machuki, 2018; Gitau et. al., 2020; Ismail et. al., 2012; Chi and Bump, 2018; Seru and Stoffman, 2017) did not focus on resource allocation and firm performance particularly in public sector or road agencies such as KeRRA where non-financial indicators such as efficiency and effectiveness are crucial. The current study however has made contribution to new knowledge in terms of

hypothesizing, empirically testing and establishing the link between resource allocation and public organizational performance, an area that to date, remained unexplored especially in the context of road agencies such as KeRRA.

4.11: The effect of Environmental Uncertainty on Performance of KeRRA

The third objective of the study was to establish the effect of environmental uncertainty on organizational performance at KeRRA. In this regards, environmental Uncertainty was found to have significant positive influence on organization performance at KeRRA (B= 0.439, *p =.000*) thereby rejecting the third null hypothesis H_{03}, which states that environmental uncertainty does not have a significant influence on performance of KeRRA. This means that a unit change in environmental uncertainty will cause 0.439-unit change in performance and the change is significant. This implies that environment uncertainty as one facet of strategy implementation factor is a significant predictor of organizational performance at KeRRA.

The finding that environmental uncertainty exert significant positive influence on performance at KeRRA has received some support from theoretical literature as well as past empirical studies. For instance, McCabe (1990), investigating how perceived environmental uncertainty (PEU) influenced performance in airlines and found a direct positive link between the two variables. However, the findings of the current study were at variance with (Elbanna & Elhwerai, 2012), who researched on how performance was influenced by environmental uncertainty and hostility and found that there exists no relationship between the variables. The current study concurs with the finding by (Gul et. al., 1993) who studied on the effect of environmental uncertainty and Management Accounting Systems (MAS) on small businesses and found that under high perceived environmental conditions, MAS information are necessary to enhance decision making and facilitate performance. Moreover, (Kafetzopoulos et al., 2019) was in concurrence with the current study when he stated that environmental uncertainty has been confirmed as a significant factor upon which organizational performance depends. This current study however, has made contribution to new knowledge in terms of hypothesizing, empirically testing and establishing the empirical link between environmental uncertainty and firm performance, an area that remained unexplored by past studies particularly in the context of public sector road agencies like KeRRA.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the study findings based on each research objective. It also covers conclusions and recommendations emanating from the results.

5.2 Summary of findings

The first objective of the study was to establish the influence of organization structure on performance at KeRRA. The corresponding null hypothesis was that organization structure does not have a significant influence on performance of KeRRA. The study finding revealed that organization structure indeed has a significant positive influence on performance at KeRRA.

The second objective of the study was to determine the influence of resource allocation practices on performance of KeRRA. The corresponding null hypothesis was that resource allocation practices does not have a significant influence on performance of KeRRA. The study finding revealed that resource allocation has a significant positive influence on service performance of KeRRA.

The third objective of the study was to assess the influence of environmental uncertainty on performance of KeRRA. The corresponding null hypothesis was that environmental uncertainty does not have a significant influence on performance of KeRRA. The study finding reveals that environmental uncertainty exerts significant positive influence on performance of KeRRA.

5.3 Conclusions

On the first objective which sought to establish the effect of organization structure on performance of KeRRA, the study concludes that organization structure is a key determinant of organizational performance at KeRRA.

On the second objective of the study which sought to examine the effect of resource allocation on performance of KeRRA, the study concludes that resource allocation as an element of strategy implementation factors, is a significant determinant of performance at KeRRA.

On the third objective of the study which was to assess the influence of environmental uncertainty on performance at KeRRA, the study concludes that there is a statistically significant positive relationship between environmental uncertainty and organizational performance at KeRRA.

5.4 Recommendation

Based on the foregoing findings and conclusions the study therefore recommends the following.

First, because organizational structure exerts the positive significant effect on firm performance, management should focus its efforts and resources on improving elements of organizational structure such as formalization, centralization and coordination as these initiatives enhances the level of performance at KeRRA.

Secondly, KeRRA should consider all facets of resource allocation since resource allocation practices are positively associated with firm's performance. Specifically, they should consider disbursement and adequate budgetary allocations of both human, financial and other

physical resources to allow road agency to achieve its mandate of improving roads in rural parts of the country.

Thirdly, since environmental uncertainty provides a platform upon which organizational performance depends on, the firm should embark upon environmental scanning particularly along the three dimensions of macro-environment, technology and demand and supply.

5.5 Limitations of the study

While this research offers insights into how various strategic implementation factors influence organizational performance at KeRRA, this work is not without limitations. Specifically, the sample size was limited due to time and cost constraints, but this weakness was remedied by thorough literature review to compensate the inadequacy that was caused by data limitations.

5.6 Areas for Further Research

Based on the foregoing conclusions on the findings of this study, the researcher suggests the following future research directions in the field of strategic implementation factors and performance

First, this study used cross-sectional data to test the hypothesis on the perceived relationship between the strategic implementation factor and organizational performance. It only provided a snapshot picture at a single point in time. Therefore, there is need to conduct a longitudinal study to provide even more conclusive evidence to the above relationship.

Secondly, the hypotheses in the current study were tested using data obtained from employees working in KeRRA's County Offices. There is therefore need to test these results in different national cultures and economic contexts to be able to establish global generalizability of the findings.

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APPENDICES

Appendix I: Letter of Introduction

Dominic Achoka Kundu
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NAKURU
Cell Phone: 0723658485
E-Mail: dominickundu78@gmail.com

TO WHOM IT MAY CONCERN

Dear Sir /Madam,

RE: INFLUENCE OF STRATEGY IMPLEMENTATION FACTORS ON PERFORMANCE OF DEPARTMENT OF INFRASTRUCTURE IN KENYA: A CASE OF KENYA RURAL ROADS AUTHORITY
The above subject refers.

I am a student at Maseno University undertaking Master Degree in Business Administration, School of Business Studies. I am carrying out research on the topic above.

The purpose of this letter is to request you to assist research by completing the questionnaire herein enclosed. The information to be provided by yourself will treated in strict confidence and shall be used for purposes of this thesis only without disclosing you as the source. However, subject to your request a copy of research results will be availed to you for your review.

Your consideration is highly appreciated.

Yours sincerely,

Dominic A. Kundu
MBA/BE/00016/2019

Appendix II: Questionnaire

The purpose of this academic questionnaire is to assist in collecting data relating to the influence of strategic implementation factors on performance of Kenya Rural Roads Authority. As one of the key acknowledged respondents you are requested to complete it. Any information given with respect to this request is private and confidential and will only be used for academic purposes only.

PART ONE-DEMOGRAPHIC DATA

1. Please state your department: Supply Chain Management ( ) Accounts ( ) Engineering ( )

2. Please show your Gender: Male [ ] Female [ ]

3. Please show your Age

   [ ] 18-25 years [ ] 26-35 years [ ] 36-45 years

   [ ] 46-55years [ ] Over 55 Years

4. Please show your highest level of education attained

   Diploma [ ] Degree [ ] Post Graduate (Masters, PHD) [ ]

5. Please show how many years you been working in your current station?

   Below 5years [ ] 6-10years [ ] 11 -15years [ ] above 15years [ ]

PART B- Organizational Structure

9. Please indicate the extent to which the following statements apply to your organization by ticking [√] your view. The value of scale is given below

NE-No Extent (1), SE-Small Extent (2), ME-Moderate Extent (3), LE-Large Extent (4), VLE-Very Large Extent (5)

	1	2	3	4	5
Formalization KeRRA's mission is formally defined and pursued by all departments					
Levels of authority for each staff has been clearly identified					
Your role has been clearly identified and stated in the current organizational structure					
There are rules, procedures, and written documentation such as policy manuals and job descriptions that prescribe the rights and duties of employees					
Centralization Our organization's structure focuses on centrality in reporting					
There are formal reporting relationships within the organization's structure					
Decision making is done at the top					
Coordination The system is designed to ensure effective communication, coordination and integration of efforts across departments					
Activities of separate departments are integrated to accomplish organization goals					
Authority is grouped into departments which make up the organization					

PART C- Resource Allocation

10. Please indicate the extent to which the following statements apply to resources within your organization (Kindly tick the relevant box for each). NE-No Extent (1), SE-Small Extent (2), ME-Moderate Extent (3), LE-Large Extent (4), VLE-Very Large Extent (5)

	1	2	3	4	5
Financial Resources					
Budget allocation is provided within a promptly					
Funds are disbursed according to the budget					
There are no pending bills at the authority					
Works are procured as per the available budget					
Responsive Contractors have adequate cashflow					
Human Resources KeRRA Staff has requisite knowledge to execute its mandate					
There is adequate staff with requisite technical skills					
There is sufficient staff with requisite planning skills					
Physical Resources					
KeRRA has invested in Engineering Design Programs					
Responsive Contractors have adequate machinery					
KeRRA has provided financial managements systems					
The Authority has a Road Management System					
The Authority has provided adequate Office space and furniture					

PART D- Environmental Uncertainty

11. To what extent does the following environmental uncertainty issues affect your organization? Kindly tick [√] your view NE-No Extent (1), SE-Small Extent (2), ME-Moderate Extent (3), LE-Large Extent (4), VLE-Very Large Extent (5)

Technology	1	2	3	4	5
Technology in the construction industry is rapidly changing					
Technological Changes contribute to efficiency in construction					
Contract completion period can be affected by continued embracing of technology					
Construction technology results to project cost savings					
The Authority adopts emerging contracting methods					

Demand/Supply	1	2	3	4	5
Feasibility studies are carried out before construction execution.					
Road network distribution can be informed by human population density					
The type of responsive bidders determines road project success					
Economic considerations					
Legal considerations					
Social considerations					

Macro environmental	1	2	3	4	5
Availability of natural gravel material affect road construction					
Ecological conditions (rainfall, temperature, topography)					
Presence of foreign contractors affect KeRRA'S strategy implementation					
Provision of alternative transportation systems (railway, air, water					
Political factors					

PART E- Performance

12. Please indicate the extent to which following statements apply to your organization

Please answer each using the following scale: NE-No Extent (1), SE-Small Extent (2), ME-Moderate Extent (3), LE-Large Extent (4), VLE-Very Large Extent (5)

EFFICIENCY	1	2	3	4	5
KeRRA delivers the road construction projects within the Contract price					
The Authority delivers its projects within the contract time					
Most projects encounter variations					
Roads constructed by KeRRA are durable					
Management has relevant skills towards the objectives of the authority					

There is qualified workforce to execute the KeRRA's mandate					
Public Procurement and public finance regulations are adhered to at the authority					
EFFECTIVENESS					
There is adequate design and supervision for road construction					
There is adherence to Contract conditions and specifications					
There's increased accessibility and mobility in rural areas					
There are increased accidents on roads under the management of KeRRA					
There has been reduced road user costs due to improvement of rural roads					
The entire road asset is adequately functional					

Appendix III: Work Plan

Estimated time frames

S/No	Description	PERIOD (2021)						
		May	June	July	Aug	September	Oct	
1	Proposal Development and Approval							
2	Data Collection and Analysis							
3	Final Report & Submission							

Appendix IV: Budget

ESTIMATED BUDGET

Item description	**Cost implication in Kenya Shilling**
Proposal Development	20,000.00
Printing and Binding	15,000.00
Data Collection and Analysis	20,000.00
Sub Total 1	55,000.00
Add 10% Contingencies	5,500.000
TOTAL	60,500.00