

**RESPONSE STRATEGIES TO CHALLENGES OF DEVOLVED
GOVERNANCE IN THE RENEWABLE ENERGY SECTOR IN
KENYA**

BY

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DEDICATION

To my parents Salome Kamau for the unwavering belief, support and motivation throughout the duration of my studies and the late Arthur Kinyanjui Kamau for laying the foundation.

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I give thanks to the Almighty God, for the strength and wisdom He accorded me and for enabling me successfully complete this course.

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Thank you all. May the Almighty God bless you abundantly.

ABSTRACT

Businesses are currently operating in a highly dynamic environment because of increased globalization and internationalization. In order to align themselves with the changes in the operating environment, it is important that they re-strategize. The objectives of the study were to determine the challenges of devolved governance in the renewable energy sector in Kenya and to establish the response strategies to the challenges of devolved governance in the renewable energy sector in Kenya. This study adopted a cross-sectional survey design. The population of the study comprised all 36 renewable energy sector firms in Kenya. This study included all the firms in the study hence a census. This study used primary data collected using a questionnaire. The study interviewed business development officers in the renewable energy firms because of their involvement in business development issues in their respective companies. The questionnaires collected from the field were inspected for completeness and consistence then entered into Statistical Package for Social Sciences for processing. The Likert scale type questions were analyzed using mean scores and standard deviations. The open-ended questions were analyzed qualitatively using content analysis and the results presented under identified themes as per the objectives of the study. The study established that the respondents were neutral on the county governments competing for prosperity. The study established that there was weak institutional capacity at the devolved government level thus devolved governance empowering the grassroots citizenry and decentralized decision making was challenging. This study therefore recommends that government can provide a smooth transition from a central government to county government to improve decentralized governance structures. The study further concluded that the counties did not have adequate financial resources to improve organizational operations. This study therefore recommends that the stakeholders in the renewable energy industry as well as the county management needs to come up with strategies that would enable effective management of the available financial resources as well as strategies through which they can generate additional funds for the management of the renewable energy sector. Further the study recommends holding community education on the advantages of renewable energy, offering free transportation for customers from the counties and establishing branches at the county/sub-county level to improve decentralize government structures.

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LIST OF ABBREVIATIONS

ERB	Electricity Regulatory Board
ERC	Energy Regulatory Commission
FiT	Feed-in Tariff
G.D.C	Geothermal Development Company
IPPs	Independent Power Producer
K.P.C	Kenya Pipeline Company
KENGEN	Kenya Generating Electricity Generating Company
KETRACO	Kenya Electricity Transmission Company
LCPDP	Least Cost Power Development Plan
MOEP	Ministry of Energy and Petroleum
OST	Open System Theory
PV	Photovoltaic
R.E.A	Rural Electrification Authority
SREP	Scaling Up Renewable Energy Program
TQM	Total Quality Management
VAT	Value Added Tax

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Businesses are currently operating in a highly dynamic environment because of increased globalization and internationalization. This has made the operating environment very competitive such that any organization that does not develop appropriate strategies to respond to these challenges is negatively affected (Pearson & Robinson, 2005). Coping with the increasingly competitive environment has called on firms to rethink their strategies. Gone are the days when companies could wait for clients to walk to their organizations thus organizations must realize that their services and products regardless of how they are cannot sell themselves (Kotler, 2000). All organizations operate in an environment hence are affected by and affect the happenings in that environment. Lawrence & Lorsch (1972) defined the organizational environment as all elements that exist outside the boundary of the organization and have potential to affect all or part of the organization. Organizations as a social institution, have an intricate and important relationship with the environment with which they interacts. In order to remain competitive in such environment, it is important that they develop relevant strategies.

The study was based on the open systems theory which holds that organizations do not operate in a vacuum but rather in a society and are thus affected by the happenings in the society in equal measure that they affect that particular environment. Open System Theory (OST) maintains that people and their organizations must have an open and actively adaptive relationship with the contextual environment over time to ensure

viability (Aughton & Neville, 1999). There is no single organization that operates in a vacuum but instead they all operate in a society hence they are affected by the environment in the same manner that they affect the environment.

The promulgation of the new Constitution of Kenya, 2010 provided for a changed structure in the legislative arm of government. According to the Constitution of Kenya, 2010, devolved governance is achieved by the creation of County Governments and decentralized units and structures (Commission on Revenue Allocation, 2013). In order to serve their markets better, energy renewable firms have developed strategies in response to the changing governance structure in the Country. These strategies have been developed in order to create, sustain and enhance their competitiveness in the selected Counties. This study therefore seeks to establish the response strategies to challenges of devolved governance by renewable energy sector in Kenya.

1.1.1 Response Strategies

Strategy has been defined differently by different scholars. Woods & Joyce (2003) define strategy as a set of beliefs on how a firm can achieve success. Development of strategies and strategic thinking within an organization is a way of dealing with the inherent unpredictability of the future (Godet & Roubelat, 1996). Pearce and Robinson (1997), define strategic responses as the set of decisions and actions that result in the formalization and implementation of plans designed to achieve a firm's objectives. According to Johnson & Scholes (2002), strategy refers to the machinery of the resources and activities of an organization to the environment in which it operates.

According to Ansoff & McDonnell (1990) strategic responses to changes in the operating environment involve changes in the firm's strategic behaviors to assure success in transforming future environment. Pearce & Robinson (2005) define strategic responses as the set of decisions and actions that result in the formalization and implementation of plans designed to achieve a firm's objectives. A strategy is therefore a reaction to what is happening in the economic environment of organizations. Porter (1998), views operational responses as part of a planning process that coordinates operational goals with those of the larger organization. Hence operational issues are mostly concerned with certain broad policies and policies for utilizing the resources of a firm to the best support of its long term competitive strategy.

A response strategy is the search for a favorable competitive positioning in the industry in order to beat competition and remain relevant in the market. In most corporations there are several levels of strategy they are corporate level, business level and operational levels. The "lowest" level of strategy is operational strategy and is very narrow in focus and deals with day-to-day operational activities such as scheduling criteria. Operational level strategies are informed by business level strategies which, in turn, are informed by corporate level strategies. According to (Porter, 1998), developing a competitive strategy is developing a broad formula on how a business is going to compete, what its goals would be and what policies would be needed to carry out these goals. According to Pearce & Robinson (2005) it is through strategic responses that a firm is able to position and relate itself to the environment to ensure its continued success and also secure itself from surprises brought about by the changing environment. Similarly, Aosa (1992) saw

strategy as creating a fit between the external and internal conditions of a firm in order to solve a strategic problem.

Strategic responses adopted by companies reflect the firm's internal strengths and the opportunities faced in the external environment. Strategy also considers how best to deal with internal weakness and avoid external threats. Hill & Jones (2001) note that internal new venturing is a strategy employed when a company has a set of valuable competencies in its existing business that can be leveraged to enter a new business area. Science based companies use their technology to create market opportunities in related areas mainly through internal new venturing. A firm can also use this strategy to enter and compete in a new business area or an emerging market where there are no established players.

In order to spur economic growth the following intervention measures, aimed at developing renewable sources of energy, are to be undertaken: Rapid expansion of electricity generation capacity in order to increase supply and access across the country, Developing renewable energy programmes targeting the low income population, Increasing the market penetration of renewable energy systems; Enhancing energy security through diversification of energy sources; and Promotion of energy efficiency and conservation (www.renewableenergy.go.ke). However, the cost of non renewable energy has continued to increase which has prompted growth in the renewable energy sector.

1.1.2 Environmental Challenges

A business does not function in a vacuum. It has to act and react to what happens outside the factory and office walls. These factors that happen outside the business are known as external factors or influences. These affect the main internal functions of the business and possibly the objectives of the business and its strategies. The main factor that affects most business is the degree of competition – how fiercely other businesses compete with the services that another business makes.

The other factors that can affect the business are social, legal, economic, political, technological and ethical factors. Social factors refer to how consumers, households and communities behave and their beliefs, for instance, changes in attitude towards health, or a greater number of pensioners in a population (Ansoff & McDonnell, 1990). Legal factors refer to the way in which legislation in society affects the business, for example, changes in employment laws on working hours. Economic factors refer to how the economy affects a business in terms of taxation, government spending, general demand, interest rates, exchange rates and global economic factors. Political factors refer to how changes in government policy might affect the business e.g. a decision to subsidize building new houses in an area could be good for a local brick works. Technological changes refer to how the rapid pace of change in production processes and product innovation affect a business. Lastly, ethical factors refer to what is regarded as morally right or wrong for a business to do.

According to Johnson & Scholes (2002), dealing with the environment is difficult this is because of the diversity of different business influences, difficulty in identifying

environmental influences on the organisation and the faster speed of technological changes. This makes it difficult for managers to cope with the environment and only focus on a few aspects of the environment which are important and relevant to their organisations. Ansoff & Mc Donnell (1990) say that business firms are in constant two ways interaction with the environment. They receive assortment of resources from the environment, transform them and deliver them back to the environment. The environment consists of external and internal aspects of the firm which a strategist needs to understand, monitor and position the organization to manage the opportunities and threats thereof. A study of key variables such as; technological change, demographic trends, cultural trends, economic climate, legal and political conditions, specific international events. Technology change creates both opportunity –as firms begin to explore how to use technology to create new products and services ,and threats – as technological change forces firms to rethink their technological strategies.

1.1.3 Devolved Government in Kenya

Devolution refers to a process of transfer of political power, administrative and fiscal management powers between central governments and lower levels of government, primarily operating at city and region levels (Potter, 2001). It can also be defined as the practice or form of decentralization through which the authority to make and implement decisions in selected areas of public policy is conferred to elected sub-national levels of government by law (Juma 2008). Muriisa (2008) defined Devolution as the substantial transfer of powers and authority and functions from higher or central government to local units, upon which the local units or governments subsequently acquire significant and

autonomous financial and legal powers to function without reference to central government. Devolution has been recommended as the major remedy for the failures in political governance, such include conflicts, inequalities, rent seeking, economic stagnation, corruption and insufficient use of public resources.

Decentralization programs or reforms in Africa followed the recommendations of the World Bank for developing countries to devolve political and administrative powers to local and autonomous levels. The reason for this focus is that most of the social services such as health, education, water and sanitation that are a responsibility of government are systematically failing (World Bank, 2003). The adjustment programme has therefore improved and enabled more efficient distribution of goods and services as its prime target. In addition, the recommendation was made on the basis that decentralization would quicken decision-making processes and increase participation by the local people. This would result in decisions better tailored to people's needs and reduced corruption and clientelism, which went along with centralized government.

The main aim of adopting the devolved governance system in Kenya was so that the Government involves the people in governance and allow for better supervision and implementation of policies at the grass root level. The county Government, which has since replaced the provincial administration, constitutes of a county assembly and county executive. The responsibilities of the county assembly include Exercising the powers of enacting laws at the county level, acting as an oversight instrument on the county executive and approval of plans and policies for smooth operation and management of resources and county institutions. On the other hand the county executive is charged with

the responsibility of exercising executive power at the county level, implementing laws for administration of the county as well as carrying out other executive functions of the county. The county executive gives the people an opportunity to be more actively involved in lawmaking. The county executive is led by a governor who is directly elected by the people at the county level. The appointment of the county executive members is placed under the mandate of the governor, and approval is subject to the county assembly (GoK, 2010).

1.1.4 The Power Sector in Kenya

The Energy sector in Kenya falls under the Ministry of Energy and all activities are supervised by the Energy Regulatory Commission (ERC) which was established under the Energy Act, 2006. Following the operationalization of the Energy Act, 2006, with effect from July 7 2007, the Electricity Regulatory Board (ERB) became Energy Regulatory Commission (ERC). The Energy Regulatory Commission (ERC) is mandated to supervise the activities the players. Some of the key players in the energy sector include Rural Electrification Authority (R.E.A), Kenya Generating Electricity Generating Company (KENGEN), Kenya Pipeline Company (K.P.C). Kenya Electricity Transmission Company, (KETRACO), Geothermal Development Company (G.D.C) (GoK, 2014).

Kenya's National Energy Policy is designed "to facilitate provision of clean, sustainable, affordable, reliable and secure energy services at least cost while protecting the environment." The efforts come alongside a critical time for Kenya – economic growth and energy demand are higher than ever (GoK, 2014). The current supply, although

increasing slowly, cannot keep up with demand. In response, the Kenyan government is using three policy tools to facilitate the adoption of renewable energy. The aim is to increase the country's energy supply, close the demand gap, and ultimately enable economic growth for Kenya. Less than 20% of the total population estimated at 40 million and 5% of the rural population in Kenya has access to electricity (World Bank, 2009).

1.1.5 Renewable Energy Sector in Kenya

The government's long-term development strategy focuses increasing dependence through feed-in tariffs for renewable such as solar, wind, and geothermal. Kenya has several national policy documents, long-term plans, and strategic initiatives designed to promote and invest in renewable energy for the country, including: Kenya's Scaling Up Renewable Energy Program (SREP) Investment Plan, Least Cost Power Development Plan (LCPDP), Rural Electrification Master Plan, The Energy Act of 2006, The Feed-in Tariff (FiT) Policy, The Kenya National Climate Change Response Strategy and Kenya Vision 2030. The government is making a conscious effort to increase dependence on renewable energy other than hydroelectric.

Kenya was Africa's first geothermal power producer and the world leader in the number of solar power systems installed per capita. The renewable energy sector in Kenya is among the most active in Africa. In Kenya, investment have grown from virtually zero in 2009 to US\$1.3 billion in 2010 across technologies such as wind, geothermal, small-scale hydro and bio fuels. It is still the largest producer of geothermal power in Africa today at 200 MW with only one other African country producing geothermal power, Ethiopia.

Connectivity to the national grid in Kenya currently stands at 28%. In 2011, Kenya was also the first country in Africa to open a carbon exchange (www.renewableenergy.go.ke). Several firms have ventured into the renewable energy sector in Kenya aimed at taking advantage of the Government's policy on increasing the production and usage of renewable energy. As at end of December 2013, there were 36 companies in the production of renewable energy. Their products ranged from solar panels, solar water heating systems, solar street lighting, solar security lights, and solar pumps among others.

Kenya's wind installed capacity is 5.1 MW operated by KenGen at the Ngong site. The low exploitation level of the resource prompted the Government to develop the Feed-in Tariffs (FiT) Policy which provides for a fixed tariff not exceeding US Cents 12.0 per Kilowatt-hour of electrical energy supplied in bulk to the grid for wind generated electricity.¹² High capital cost and lack of sufficient wind regime data are some of the barriers affecting the exploitation of wind energy resource. Moreover, potential areas for wind energy generation are far away from the grid and load centers requiring high capital investment for the transmission lines (www.renewableenergy.go.ke)

Solar utilization is mainly for Photovoltaic (PV) systems, drying and water heating. The Solar PV systems are mainly for telecommunication, cathodic protection of pipelines, lighting and water pumping. High initial capital costs, low awareness of the potential opportunities and economic benefits offered by solar technologies, and lack of adherence to system standards by suppliers are some of the barriers affecting the exploitation of solar energy resource. The Government has zero-rated import duty and removed Value Added Tax (VAT) on renewable energy, equipment and accessories. The Energy

Regulatory Commission has prepared Solar Water Heating Regulations. These steps are intended to mitigate the challenges faced in exploiting the solar energy resource. Other renewable energies in Kenya include Geothermal, Biomass and small hydro. The major players in the renewable sector include: The Ministry of Energy and Petroleum (MOEP), Energy Regulatory Commission (ERC), Kenya Generating Company (Ken Gen), Kenyan Power and Lighting Company (KPLC), the Rural Electrification Authority (REA), Kenya Electricity Transmission Company (KETRACO), Geothermal Development Company (GDC) and Independent Power Producer (IPPs) (www.renewableenergy.go.ke)

1.2 Research Problem

A response strategy is the search for a favorable competitive positioning in the industry in order to beat competition and remain relevant in the market. In most corporations there are three levels of strategy they are corporate level, business level and operational levels. The “lowest” level of strategy is operational strategy and is very narrow in focus and deals with day-to-day operational activities such as scheduling criteria. Operational level strategies are informed by business level strategies which, in turn, are informed by corporate level strategies. According to (Porter, 1998), developing a competitive strategy is developing a broad formula on how a business is going to compete, what its goals would be and what policies would be needed to carry out these goals. According to Pearce & Robinson (2005) it is through strategic responses that a firm is able to position and relate itself to the environment to ensure its continued success and also secure itself from surprises brought about by the changing environment.

Devolution is the statutory granting of powers from the central government of a sovereign state to government at a sub national level, such as a regional, local, or state level. It is a form of decentralization (Kruger, 2007) Devolved territories has the power to make legislation relevant to the area. Decentralization seeks to promote individual freedom and public participation in governance. For the longest time most countries especially in Africa have had a centralized form in government. In Kenya devolution was adopted in 2013. This form of leadership ensures that leadership starts from the grass roots. The adoption of devolution of resources has constantly been met with various challenges.

Several studies have been done on the effects devolution has on resource allocation. Kruger (2007) did a study on an appropriate framework for South African rural renewable energy provision. The study established that sustainable energy provision was regarded as one of the most significant development challenges facing the realm of development, especially in South Africa where large proportions of the population still lacked access to energy services. Preckel (2010) assessed the rural electric cooperatives' adoption of renewable energy technology under a devolved system; in his study, he established that there was a significant regional variations in adoption probability, independent of firm characteristics, fossil fuel prices, and existing policies. The study recommended that to effectively address these regional variations, devolution of renewable energy policy may be in order.

Locally, Namoit (2012) examined the expected economic impact of devolution of resources to the counties using a case study of Turkana County in Kenya and established

that the people of Turkana were undecided on whether the previous devolution was better than the proposed one. The Turkana people however, wanted locals to be given mandate to manage their own affairs since they believed they had leaders with adequate qualification and experience to manage their own resources. Muthoka (2012) examined response strategies to challenges of competition by horticultural export firms in Kenya and established that most of the firms did not have strategy implementation department meaning that they faced challenges in effectively implementing their strategies. Noor (2012) studied response strategies adapted by Hass Petroleum (K) Ltd to environmental challenges. Findings indicated that the organization responded to these challenges through corporate, business and functional strategies. Corporate strategies included diversification by moving to non-regulated product lines and markets, portfolio analysis and parenting strategies.

From the above studies it is clearly evident that the existing studies have examined the response strategies in other contexts and not the renewable energy sector under devolved governance structure. Thus the study sought to fill the gap in literature by assessing the response strategies on challenges of devolved governance in the renewable energy sector in Kenya. To achieve this objective, the study sought to answer two research questions: What are the challenges of devolved governance in the renewable energy sector in Kenya? And what response strategies have the companies adopted to respond to challenges?

1.3 Research Objectives

The objectives of the study were:

- (i) To determine the challenges of devolved governance in the renewable energy sector in Kenya.
- (ii) To establish the response strategies to the challenges of devolved governance in the renewable energy sector in Kenya.

1.4 Value of the Study

This study would be valuable to different stakeholders including:

Future researchers and scholars would benefit from the findings of this study as it would act as a source of reference materials besides suggesting areas for further research that they can further knowledge on in the area of strategic management in a devolved governance structure. The study would also suggest areas for further research where future scholars can extent knowledge on.

The findings of this study would also be valuable to managers in the renewable energy sector as the findings would act as a guiding framework of their future response strategies in their effort to build competitive advantage for their firms. Through the findings of this study, the managers in the renewable energy sector firms would learn of the response strategies in meeting the demand for renewable energy in Kenya

The findings would also be valuable to policy makers in the area of renewable energy and strategic management because through the findings of this study, the policy makers can learn the challenges and loopholes in their current regulatory framework and how it is affecting the operations of the firms involved. This would inform the formulation of adequate policies to guide the operations of the renewable energy industry.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the related literature on the subject under study presented by various researchers and scholars. This chapter reviews literature with respect to the research objective on response strategies adopted by the renewable energy sector on the challenges of devolution. It specifically addresses the theoretical framework for the study, concept of strategy, response strategies and challenges of decentralization.

2.2 The Theoretical Basis of the Study

The study is founded on the open systems theory which holds that organizations do not operate in a vacuum but rather in a society and are thus affected by the happenings in the society in equal measure that they affect that particular environment.

An open system is one that interfaces and interacts with its environment, by receiving inputs from and delivering outputs to the outside (Emery, 1997). It possess permeable boundaries, that permits interaction across its boundary, through which new information or ideas are readily absorbed, permitting the incorporation and diffusion of viable, new ideas. Because of these open systems can adapt more quickly to changes in the external environment in which they operate (Emery, 2000). Open systems theory provides managers with metaphors, terminology and explanations about how organizations function. Environmental influences that affect open systems can be described as either specific or general (Scot, 2003). Open systems reflected the belief that all organizations are unique in part because of the unique environment in which they operate and that they

should be structured to accommodate unique problems and opportunities. It has dominated as a framework for managerial behavior and organizational analysis (Scot, 2003).

As the environment influences the system, the system also influences environment thereby allowing the open system to ultimately sustain growth and serve its parent environment, and so have a stronger probability for survival. With increased globalization and internationalization of organizations, the operating environment has become very competitive as organizations seek ways of outperforming their competitors (Emery, 1997). Open systems help explain how organizations relate with their operating environment. Open System Theory' maintains that people and their organizations must have an open and actively adaptive relationship with the contextual environment over time to ensure viability. A new approach is needed if organizations and communities are going to prosper in today's competitive environment. Open systems like organizations are multi-cephalous whereby many heads are present to receive information, make decisions, direct action (Emery, 2000). Individual and subgroups form and leave coalitions. Boundaries are amorphous, permeable, and ever changing. But the system must exchange resources with the environment to survive (Emery, 2000).

The specific environment refers to the network of suppliers, distributors, government agencies, and competitors with which a business enterprise interacts. The general environment encompasses four influences that emanate from the geographic area in which the organization operates. The open-systems theory assumes that all large organizations are comprised of multiple subsystems, each of which receives inputs from

other subsystems and turns them into outputs for use by other subsystems (Scot, 2003). The subsystems are not necessarily represented by departments in an organization, but might instead resemble patterns of activity.

2.3 Organizations and their External Environment

An organization's environment is composed of both the external and internal environments. According to Pearce & Robinson (2005), an organization's external environment refers to all those factors beyond the control of the firm that influence its choice of direction, action, organizational structure and internal processes. Organizations exist in a complex commercial, economic, legal, demographic, technological, political, cultural and social environment. This environment is not static but is under constant change which affects the organizations that operates within it. These environmental changes are more complex to some organizations than others and for survival an organization must maintain a strategic fit with its environment (Porter, 1998). The environment is important and an organization has to respond to its dynamism, heterogeneity, instability and uncertainty for it to survive and meet its objectives (Thompson, 2007). In addition, the competitive environment has been and continues to be driven by technological innovation, globalization, competition and extreme emphasis on price, quality and customer satisfaction as the driving forces. As a result organizations must continuously create and innovate in order to stay relevant and be successful.

Business firms are in a constant two way interaction with the environment because they receive an assortment of resources from the environment and after a transformation, deliver them back to the environment in the form of goods and services (Ansoff &

McDonnell, 1990). The connection of the external environment and the organization is that of input – throughout – output process where inputs are received from the environment and released back into the same environment after being processed by the organization. These environmental changes are more complex to some organizations than others and for survival an organization must maintain a strategic fit with its environment (Pearce & Robinson, 2005). What is released back can only be consumed by the organization if it fits the environment requirements and needs (Porter, 1985).

Pearce & Robinson (2005) urge that the direction and stability of political factors are major consideration for managers on formulating company strategy. Political factors define the legal and regulatory parameters within which firms must operate. Political constraints are placed on firm's fair trade decisions antitrust laws, tax programmes, minimum wage legislation, pollution and pricing policies and administrative regulations. Some are meant to protect the firm and they include patents laws and government subsidies.

2.4 Challenges of Devolution to organizational operations

Devolved governance leads to counties engaging in various forms of decentralization management. Counties need to explore a range of difficult choices, including the emphasis to be placed on area management approaches and how far to devolve decision-making to local communities. Greater citizen engagement via Community Strategies and Best Value may be anticipated to improve service outcomes. According to Atkinson (2010) the scope for effective and accountable decentralized governance varies greatly between countries, depending on historical, economic and political conditions. Typically,

though, performance and accountability of sub-national or county governments are constrained by a number of factors: limited resources, weak institutional capacity, inadequate mechanisms of accounting and accountability, and limited availability of information.

Devolved governments in most countries have limited local taxing powers from which to finance the services assigned to them. As a result, service levels fall far short of what is required. Local revenues are often limited to a few visible (and hence unpopular) taxes that are difficult and expensive to collect, inequitable in impact and economically distorting. Whilst major urban centres may be able to generate significant revenues from property taxes and levies on businesses, in rural areas there may be little to tax. Increased local revenue mobilization often involves coercive extraction from the poor (Fjeldstad, 2001). As a result, many local governments depend heavily on transfers from the centre, which are often allocated in inequitable and non-transparent ways. This dependence on the centre (and in some cases on donors) undermines the accountability of local governments to local voters and tax-payers.

Devolved governments often suffer from weak institutional capacity. Decision making processes are unsystematic, mechanisms of accountability between officials and elected representatives are inadequate, and there is a shortage of officials with the necessary technical, managerial and financial skills. This is often due to the lack of financial resources to attract and retain high calibre staff. Salary levels for county government staff are often a fraction of what people could earn in the private sector. Very low wages also mean that the staff is preoccupied with searching for other income opportunities, whether

corrupt or simply dysfunctional. But institutional capacity also takes time to develop, whereas decentralization in many countries is relatively new. Crook & Sverisson (2007) identified the length of time that decentralization reforms had been in place as one of the factors influencing the performance of the system (Crook et al., 2001). Building institutional capacity at the local level also requires consistent support from the centre. This is often lacking.

Accountability, both of officials to elected representatives and of elected local governments to citizens, requires effective systems of accounting and auditing that create trust in the information about how resources have been used. Elected representatives, never mind ordinary citizens, are rarely in a position to check the details of the use of resources. Accounting systems are often extremely weak in local governance and are open to all manner of disputes. Annual accounts are often finalized long after the end of the financial year (if at all in some cases). Meanwhile, the central governments rarely have the capacity to perform comprehensive external audits on all local governments. For example, in Kenya, the considerable success of the Local Government Reform Programme in getting local authorities to submit annual accounts was undermined by the inability of the Controller and Auditor General's office to audit those accounts (Daily nation, 2013) Accountability also depends on information being available to citizens, in a sufficiently comprehensible form, about how resources are being used (Goetz & Gaventa., 2001). It also requires a dynamic civil society, able to engage effectively with local government on these issues. This is still a relatively rare combination in most countries.

In practice, central supervision of county governments is weak (Fjeldstad, 2001) because the system is faced with shortcomings such as the costs and practical difficulties of obtaining information from remote localities, and the lack of central resources to undertake this, information asymmetries, which make it difficult for central officials to really know the position at the local level, since reports from local officials may not reveal the true situation (Devas & Grant, 2003). The capacity of the centre to interpret correctly the information it receives, and thereby to know whether the situation is satisfactory or not, incentives for local officials to manipulate data to show what the centre wants or to indicate that central conditions have been met; including perverse incentives, such as claiming exaggerated levels of school enrolment in order to increase grant allocations rent-seeking behaviour by central officials are also situations that indicate a weak supervision system.

2.5 Response Strategies to Challenges of Decentralized Governance Structures

Devolved governance structures have changed the operating environment of many organizations as the purchase decisions are now decentralized. Fundamental forces of change have been experienced in the global business environment resulting in unprecedented competition following increased decentralization of operations (Ansoff & McDonnell, 1990). Organizations responding to these changes have realized their existing strategies and configurations may no longer serve them if they are to remain competitive. In order to remain competitive, it is important that such firms develop response strategies to deal with the changing operating environment.

Today's dynamic markets and adoption of new technologies have called into question the sustainability of competitive advantage. Under pressure to improve productivity, quality, and speed, managers have embraced tools such as TQM, benchmarking, and re-engineering Safford (2005). Dramatic operational improvements have resulted, but rarely have these gains translated into sustainable profitability. And gradually, the tools have taken the place of strategy. Njau (2000) argues that as managers push to improve on all fronts, they move further away from viable competitive positions. Porter (1980) argues that operational effectiveness, although necessary to superior performance, is not sufficient, because its techniques are easy to imitate. In contrast, the essence of strategy is choosing a unique and valuable position rooted in systems of activities that are much more difficult to match Safford (2005) holds that a winning competitive strategy is always founded on consistently understanding and predicting changing market conditions and customer needs. The goal of much of business strategy is to achieve a sustainable competitive advantage

A cost leadership strategy is one in which a firm strives to have the lowest costs in the industry and offer its products or services in a broad market at the lowest prices. Characteristics of cost leadership include low level differentiation, aim for average customer, use of knowledge gained from past production to lower production costs, and the addition of new product features only after the market demands them. Cost leadership has advantages. The strategy protects the organization from new entrants. This is because a price reduction can be used to protect from new entrants. However, the risk of cost leadership is that competitors may leap from the technology, nullifying the firms

accumulated cost reductions. Other competitors may imitate the technology leading to firm's loss of its competitiveness. Hambrick (1983) argues that the main dimension of the cost leadership strategy is efficiency, the degree to which inputs per unit of output are low.

Efficiency can be subdivided into two categories: cost efficiency which measures the degree to which costs per unit of output are low, and asset parsimony which measures the degree to which assets per unit of output are low. Together, cost efficiency and asset parsimony, capture a firm's cost leadership orientation to the extent that firms following an efficiency strategy succeed in deploying the minimum amount of 15 operating costs and assets needed to achieve the desired sales, they would be able to improve their financial performance (Hambrick, 1983; Porter, 1980). Such firms pay great attention to asset use, employee productivity and discretionary overhead. Their customers buy their products primarily because they are priced below their competitors' equivalent products, an advantage achieved through minimizing costs and assets per unit of output (Hambrick, 1983).

Differentiation strategy is one in which a firm offers products or services with unique features that customers value. Successful differentiation is based on a study of buyers' needs and behaviour in order to learn what they consider important and valuable. The desired features are then incorporated into the product to encourage buyer preference for the product. The basis for competitive advantage is a product whose attributes differ significantly from rivals' products. The value added by the uniqueness lets the firm

command a premium price. The key characteristic of differentiation strategy is perceived quality (whether real or not). This may be through superior product design, technology, customer service, dealer network or other dimensions. The advantage of differentiation is that perceived quality and brand loyalty insulates company from threats from any of the five forces that determine the state of competition in an industry. Price increases from powerful suppliers can be passed on to customers who are willing to pay. Buyers have only one source of supply.

Focus strategy involves targeting a particular market segment. This means serving the segment more efficiently and effectively than the competitors. Focus strategy can be either a cost leadership or differentiation strategy aimed towards a narrow, focused market. Advantages of focus strategy include having power over buyers since the firm may be the only source of supply. Customer loyalty also protects from new entrants and substitute products. The firm adopting focus strategy can easily stay close to customers and monitor their needs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out various stages and phases that were followed in completing the study. It involves a plan for the collection, measurement and analysis of data. The research methodology discusses the procedures and techniques that were used in the collection, processing and analysis of data.

3.2 Research Design

This study adopted a cross-sectional survey design. Cross sectional survey is a type of descriptive research design involving the collection of information from any given sample of the population element once (Ngechu, 2004). Mugenda & Mugenda (2003) noted that a survey attempts to collect data from members of a population and describes phenomenon by asking individuals about their perceptions, attitudes, behaviour or values.

Cross-sectional research design was chosen because it appeals for generalization within a particular parameter. The data obtained was standardized to allow easy comparison. Moreover, it explored the existing status of two or more variables at a given point in time. This design in meant to enhance a systematic description that is accurate, valid and reliable as possible regarding the challenges of devolved governance in the renewable energy sector in Kenya and the response strategies.

3.3 Population of the Study

Population in statistics is the specific population about which information is desired. It consists of all the elements having similar characteristics that the research is concerned with. According to Bryman & Bell, (2003) a population is a well defined or set of people, services, elements, events, group of things or households that are being investigated.

The population of the study comprised all renewable energy sector firms in Kenya. According to records at the Energy Regulatory Commission (ERC), there were 36 registered renewable energy companies in Kenya. These formed the target population of the study. This study included all the firms in the study hence a census.

3.4 Data Collection

This study used primary data collected using a questionnaire. The questionnaire was set out in three parts where there were questions to obtain the demographic information of the respondents, questions on the challenges of devolved system in the renewable energy sector and questions on the response strategies adopted to address the challenges encountered.

Using a questionnaire as a data collection tool is cost effective as well as an objective and standardized tool. The questionnaire was semi structured with both open and close ended questions. The closed ended questions made use of a five point liker scale where respondents filled according to their level of agreement with the statements. The open ended questions were used to encourage the respondents to give an in-depth response where close ended questions were limiting. The study interviewed business development

officers in the renewable energy firms because of their involvement in business development issues in their respective companies. To administer the questionnaires, the study adopted a drop and pick later method to reduce the level of disruptions in the respondents work schedules.

3.5 Data Analysis

Data analysis involves cleaning and organizing the data for analysis, describing the basic features of the data in the study and inferential statistics which involves hypothesis and models testing (Mugenda & Mugenda, 2003). The questionnaires collected from the field were inspected for completeness and consistence then entered into Statistical Package for Social Sciences for processing. The edited data was coded for ease of classification in order to facilitate tabulation.

The closed ended questions were coded and analyzed quantitatively, based on percentages and frequencies and presented in tables and charts. Further, the Likert scale type questions were analyzed using mean scores and standard deviations. Mean scores were used to show the statements that most of the respondents agreed with. The open-ended questions were analyzed qualitatively using content analysis and the results presented under identified themes as per the objectives of the study.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

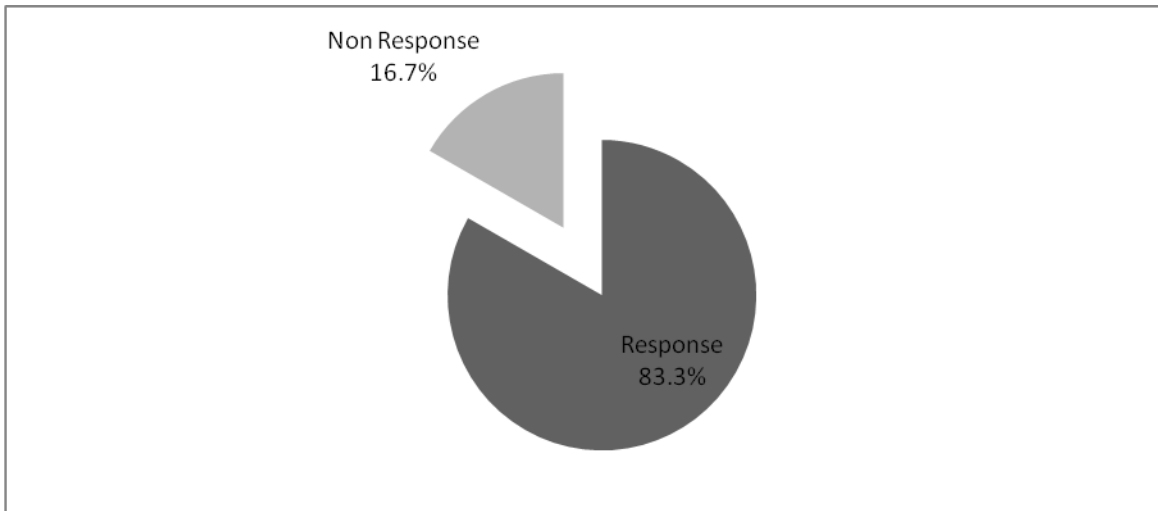
4.1 Introduction

This chapter presents analysis and findings and discussion of the study as set out in the research methodology.

4.2 Response Rate

The study targeted a total of 36 development officers, one from each of the 36 companies. Out of the distributed 36 questionnaires, 30 were filled and returned. This gave a response rate of 83.3%. According to Mugenda & Mugenda (2003) the statistically significant response rate for research analysis should be at least 50%.

Figure 4.1: Response Rate



Source: (Research Data, 2014)

4.3 General Information

4.3.1 Name of your Organization

The study sought to establish which organization each respondent represented. Respondents were from the 36 identified renewable energy companies.

4.3.2 Years Organization has been in operations

The study sought to establish the number of years the respondents' company had been in operation. The findings are shown in table 4.1

Table 4.1: Years organization has been in operation

	Frequency	Percent
Below 5 Years	7	23.3
6-10 Years	14	46.7
Above 10 Years	9	30.0
Total	30	100.0

Source: (Research Data, 2014)

The organizations that had been in operations for less than 5 years were 23.3%, 46.7% have been in operations for 6-10 years, 30.0% for more than 10 years. This study incorporated organizations that had been in the industry for various years and thus each had different levels of experience.

4.3.3 Renewable Energy your firm deals in

The study sought to establish the renewable source of energy the respondents' firm dealt with. The findings are shown in table 4.2

Table 4.2: Renewable energy your firm dealt in

	Frequency	Percent
Solar water heating	11	36.7
Solar lighting	8	26.7
Wind power	4	13.3
Batteries manufacture	2	6.6
Renewable energy Consultancy	5	16.7
Total	30	100.0

Source: (Research Data, 2014)

36.7% of the firms deal with solar water heating, 26.7% deal with solar lighting, 13.3% deal with wind power, 6.6% deal with batteries manufacture and while renewable energy Consultancy is 16.7%. These findings show that the respondents were distributed throughout several renewable energy firms.

4.4 Challenges of Devolution to Organizational Operations

Table 4.3 represents the respondents' views on the listed challenges of devolution to organizational operations.

Table 4.3: Challenges of devolution to organization operations

	Mean	Std. Dev
Devolved Governance has increased the capacity at the grassroots	3.102	1.340
Weak institutional capacity at the devolved governments	3.788	0.907
Financial spending decisions are made at the County level	3.939	1.409
Devolved government has created the need for reduced lead time	2.337	1.308
Restrictions on the volume of business to be awarded	3.806	1.308
Need to understand the dynamics of the County governments	1.794	1.322
Devolved governance has empowered the grassroots' citizenry	4.206	1.153
Devolved governance has decentralized decision making	4.206	1.562
The county Governments are competing for prosperity	3.265	1.128
County Governments have presented growth potential	3.368	1.346
Some counties are requiring incentives to adopt renewable energy	4.623	1.196

Source: (Research Data, 2014)

The respondents agreed that devolved governance has empowered the grassroots citizenry and decentralized decision making both with a mean of 4.206. They also agreed that weak institutional capacity at the devolved governments, financial spending decisions made at the county level and restrictions on the volume of business to be awarded to firms operating within the county were challenges of devolution to organization operations with means of 3.788, 3.939 and 3.806. The respondents strongly agreed that some counties are requiring incentives for renewable energy sources with a mean of 4.623.

The respondents however were neutral on the county governments competing for prosperity, county governments have presented growth potential which was initially absent and devolved governance had increased the capacity at the grassroots with a mean of 3.265, 3.368 and 3.102. The respondents disagreed with the statements; devolved government has created the need for reduced lead time and need to understand the dynamics of the county governments with means of 2.337 and 1.794 respectively.

The study sought to establish to what extent the identified challenges affected the operations of the respondents' firm. The responses are shown in Table 4.4

Table 4.4: Extent of influence of changes

	Frequency	Percent
very great extent	4	13.3
great extent	6	20.0
moderate extent	4	13.3
little extent	9	30.0
no extent	7	23.4
Total	30	100.0

Source: (Research Data, 2014)

From the responses in table 4.4 those who said that challenges affected the operations in their firm to a very great extent were 13.3%, 20.0% said to a great extent, 13.3% said to a moderate extent, 30.0% said to a little extent and 23.4% said to no extent at all. There are a number of challenges that organizations dealing with renewable sources of energy encounter in their day to day operations of the firm.

4.5 Response Strategies to Challenges of Decentralized Governance Structures

The study sought to establish the response strategies that had been adopted to minimize the effects to challenges of decentralized governance structures. The findings are shown in Table 4.5

Table 4.5: Response strategies to challenges of decentralized governance structures

	Mean	Std. Dev
Improving operational efficiency to provide room for low prices	4.698	0.907
Entering into joint ventures with partners at the County/Sub-County	4.265	1.128
Holding community education for on the advantages of renewable energy	3.978	1.346
Offering free transportation for customers from the Counties	3.823	1.196
Establishing branches at the County/Sub-County level	3.588	3.766
Differentiating organizational products from other competitors' products	3.029	1.409
Adopting low cost strategy to reach mass market at the County level	2.702	1.340
Segmenting the market for convenient service	2.463	1.308
Increasing the marketing and advertisement budget	1.327	1.308

Source: (Research Data, 2014)

The respondents strongly agreed with improving operational efficiency to provide room for low prices as a response strategy with the mean of 4.698. They also agreed with entering into joint ventures with partners at the county/sub-county, holding community education for on the advantages of renewable energy, offering free transportation for customers from the counties and establishing branches at the county/sub-county level as

response strategies to challenges of decentralized governance structures with means of 4.265, 3.978, 3.823 and 3.588.

The respondents were neutral differentiating organizational products from other competitors' products with a mean of 3.029 and adopting low cost strategy to reach mass market at the county level with a mean of 2.702. They disagreed with segmenting the market for convenient service with a mean of 2.463 and strongly disagreed with increasing the marketing and advertisement budget with a mean of 1.327 as response strategies.

Other strategies identified by the respondents included training of county decision makers on the benefits/ advantages of renewable energy and divesting the marketing and advertisement functions to the county level as some of the response strategies. This acted as a catalyst for firms dealing in renewable energy sources to penetrate the market and create dominance

The study sought to establish to what extent the identified response strategies minimized the challenges of decentralized governance structures. The responses are shown in Table 4.6 below

Table 4.6: Extent of response strategies to challenges

	Frequency	Percent
very great extent	12	40.0
great extent	10	33.3
moderate extent	7	23.4
little extent	1	3.3
no extent	0	0.0
Total	30	100.0

Source: (Research Data, 2014)

The respondents who said that the response strategies adopted to minimize the challenges of decentralized government structure to a very great extent were 40.0%, 33.3% said to a great extent, 23.4% said to a moderate extent and 3.3% said to a little extent and 0.0% said to no extent.

4.6 Discussion

The study established that devolved governance had empowered the grassroots citizenry and decentralized decision making. However, devolved governance posted several challenges including weak institutional capacity at the devolved governments, financial spending decisions made at the county level and restrictions on the volume of business to be awarded to firms operating within the county. These findings are consistent with Atkinson (2010) who argues that devolved governance leads to counties engaging in various forms of decentralization management. Counties need to explore a range of difficult choices, including the emphasis to be placed on area management approaches and how far to devolve decision. Following decentralized governance and decision making processes, some contracts for the devolved governance were restricted to firms operating within a given County thus making it necessary for firms to devolve their operations too. Crook and Sverisson (2007) argue that devolved governments often suffer from weak institutional capacity. Decision making processes are unsystematic, mechanisms of accountability between officials and elected representatives are inadequate, and there is a shortage of officials with the necessary technical, managerial and financial skills.

The respondents also indicated that the county governments were not competing for prosperity but presented growth potential which was initially absent. In addition, the respondents indicated that devolved governance had increased the capacity at the grassroots and presented challenges for firms to satisfy the needs of county dwellers from a central point in Nairobi. In order to serve them better, devolved government was creating the need for reduced lead time and need to understand the dynamics of the county governments. This made it necessary for organizations in the renewable energy sector to decentralize their offices and operations so as to swiftly meet the needs of the county. This made it necessary for the firms to open branch networks within various counties so as to serve them better.

The study also established that in order to serve the devolved government better, firms were entering into joint ventures with partners at the county/sub-county level, holding community education on the advantages of renewable energy, offering free transportation for customers from the counties and establishing branches at the county/sub-county level as response strategies to challenges of decentralized governance structures. These findings are consistent with the argument of Ansoff and McDonnell (1990) that organizations responding to changes have realized that their existing strategies and configurations may no longer serve them if they are to remain competitive. In order to remain competitive, it is important that such firms develop response strategies to deal with the changing operating environment.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusion and recommendation made there to. The conclusions and recommendations drawn were focused on addressing the purpose of this study which was to determine the challenges of devolved governance in the renewable energy sector in Kenya and to establish the response strategies to the challenges of devolved governance in the renewable energy sector in Kenya.

5.2 Summary of the Findings

From the findings of the study on the first objective, it was established that majority of the respondents agreed that devolved governance had empowered the grassroots citizenry and decentralized decision making which were initially a challenge. However, current challenges included weak institutional capacity at the devolved governments, financial spending decisions made at the county level and restrictions on the volume of business to be awarded to firms operating within the county. Need for incentives in some of the was also identified as a key challenge.

The respondents were neutral on the county governments competing for prosperity. County governments presented growth potential which was initially absent and devolved governance increased the capacity at the grassroots. These posted great challenges to renewable energy firms as their central offices could not sufficiently meet the needs and

wants in the devolved governance structure. Devolved governance created the need for reduced lead time and need to understand the dynamics of the county governments.

On the second objective the study established that the renewable energy firms employed several strategies in response to the challenges posted by devolved governance. These strategies included entering into joint ventures with partners at the county/sub-county, holding community education on the advantages of renewable energy, offering free transportation for customers from the counties and establishing branches at the county/sub-county level. Further findings show that firms improved operational efficiency which enabled them to provide room for low prices as a response strategy. The study also reveals that the respondents were neutral on differentiating organizational products from other competitors' products and adopting low cost strategy to reach mass market at the county level as response strategies. The study established that firms were segmenting the market for convenient service and increasing the marketing and advertisement budget as response strategies.

5.3 Conclusion

From the findings of the study concludes that there was weak institutional capacity at the county government level. In general however, the study concludes that devolved governance was empowering the grassroots citizenry and decentralized decision making. However, these were a challenge as the counties were not well institutionalized thus giving room for inefficiencies. The study also concludes that devolved governance structure decentralized decision making processes and spending therefore making it difficult to serve the counties from a central office. In some instances, the study

established that the consumers were not conversant with the benefits of renewable energy thus the firms had to invest in educating the community. The study further concludes that devolved governance created the need for reduced lead time and the need to understand the dynamics of the county governments. This required that renewable firms set up offices in the county and sub-counties so as to service their customers better.

On the second objective the study concludes that in response to devolved governance changes, renewable firms responded by entering into joint ventures with partners at the county/sub-county, holding community education for on the advantages of renewable energy, offering free transportation for customers from the counties and establishing branches at the county/sub-county level. In addition, increased operational efficiency enabled renewable energy firms to increase efficiency and was thus able to provide low prices, differentiate their products from other competitors' products and adopt low cost strategies to reach mass market at the county level. This enabled them to remain competitive on the devolved market. The firms also segmented their markets to allow them to focus their services and products to a given market clientele. The firms also increased their marketing and advertisement budget for educating the public and informing them on the benefits of renewable energy.

5.4 Implication of the Study for Policy, Practice and Theory

5.4.1 Implication for Policy

In order to improve and reduce the challenges of devolved governance it is important that the county governments implement all the recommendations from the study. The study established that the respondents were neutral on the county governments competing for

prosperity. These findings reveal that the renewable energy policy makers in the county needs to come up with effective policies that would help in the proper use of government funds to expand the industry. The government could also develop policies that will see the adopting of low cost strategy to reach mass market at the county level. The study also established that financial spending decisions made at the county level were uninformed thus leading to mismanagement of funds. The implication from the findings of the study would therefore enable the policy makers and the government in general to come up with a policy or develop a fund that would cater for the development needs of the renewable energy sector.

The government can also use the findings of the study to devise policies that would ensure effective management and accountability in the management of these finances to discourage the misappropriation of the funds. The study findings also revealed that there was weak institutional capacity at the devolved government's level. These findings imply that the ministry of energy needs to come up with policies that would engage the renewable energy industry by providing more incentives. These would ensure involvement by the government thus creating for accountability. The findings also established that the financial spending decisions were made at the county level and restrictions on the volume of business to be awarded to firms operating within the county. Government can come up with policies to curb such restrictions and encourage more business in the county level. The study also established that there were some counties offering incentives for renewable energy sources. These findings imply that the county governments need to come up with strategies in which they can ensure such incentives

are provided to all counties thus promoting equal access to the renewable energy facilities. The policies would also contribute greatly to the development of the renewable energy sector in the country and national development.

5.4.2 Implication for Practice

In practice, the findings of this study can be used by the government and other organizations both public and private in planning and implementing strategies to ensure smooth running of the renewable energy sector. The study established that there was a need to understand the dynamics of the county governments. The government can provide a smooth transition from a central government to county government. The government can also use this study to determine the volume of business to be awarded to firms operating within the county so as to ensure that there's improvement in operational efficiency. This would improve the decentralized governance structures. The study also established that there were no financial resources available to improve the already established branches at the county/sub-county level; this implies that there is need for mechanisms that would generate better financial resources or better management of the available resources.

In practice, the government needs to review its financial resource allocation mechanism to counties. The government can also conduct audit reports to access the developments the already allocated funds has done and whether there is need for allocation of more funds. The government can also reduce the financial burden on the counties by embarking on major developments that are capital intensive for the renewable energy sector. The findings also imply that stakeholders in the renewable energy industry as well

as the county management needs to come up with strategies that would enable effective management of the available financial resources as well as strategies through which they can generate additional funds for the management of the renewable energy sector.

5.4.3 Implication for Theory

The results of this study would also be important to researchers and scholars, as it would form a basis for further research. The findings of this study have contributed to increasing the already existing literature on the challenges of devolution to organizational operations. These findings can be assessed by future researchers so as to increase their knowledge on the topic. The findings of the study also imply that researchers in the future can be able to criticize the already existing theories, identify gaps as well as recommend areas that can be further researched on. The findings of this study also imply that it has added literature to the already literature in existence and can be archived for future reference.

The study is founded on the open systems theory which holds that organizations do not operate in a vacuum but rather in a society and are thus affected by the happenings in the society in equal measure that they affect that particular environment. The findings of the study therefore imply that county officials and stakeholders of the renewable energy sector can be able to access the environment in which their industries are operating under and device proper management strategies to effectively run them. The findings of the study also imply that researchers in the devolution field can use the theories discussed and relate them to the studies thus identifying gaps that need to be addressed to ensure effective devolution to organizational structures of decentralized government in Kenya.

5.5 Recommendations

The study established that devolved governance brought with it several challenges including weak institutional capacity. In order to strengthen the institutional capacity and improve governance, the study recommends that institutional public governance and ethics training be organized for the staff at the County level to equip the staff with necessary skills and knowledge. This will improve the employees ability to deliver quality services and products.

From the summary of findings and conclusions in this chapter, the study established that there was weak institutional capacity at the devolved government level thus devolved governance empowering the grassroots citizenry and decentralized decision making was challenging. This study therefore recommends that government can provide a smooth transition from a central government to county government to improve decentralized governance structures. The study also established that there are no financial resources available to improve the already established branches at the county/sub-county level. To improve devolution to organizational operations, the study recommends that the government needs to review its financial resource allocation mechanism to counties.

The study further concluded that the counties did not have adequate financial resources to improve organizational operations. Many strategies implemented in the counties require funds. However, the resources available at the county level were not sufficient to implement all the strategies meant to improve devolution to organizational structures. This study therefore recommends that the stakeholders in the renewable energy industry as well as the county management needs to come up with strategies that would enable

effective management of the available financial resources as well as strategies through which they can generate additional funds for the management of the renewable energy sector. This study also recommends that the government can also reduce the financial burden on the counties by embarking on major developments that are capital intensive for the renewable energy sector.

Finally the study established that there is a high level of misappropriation in management of the funds provided and therefore recommends that the government conduct audit reports to access the developments the already allocated funds has done and whether there is need for allocation of more funds.

On the second objective, the study recommends that entering into joint ventures with partners at the county/sub-county to improve devolution in organizational operations. Further the study recommends holding community education for on the advantages of renewable energy, offering free transportation for customers from the counties and establishing branches at the county/sub-county level to improve decentralize government structures. The study also recommends that the county governments provide room for low prices, differentiate organizational products from other competitors' products and adopt low cost strategies to reach mass market at the county level in gearing towards devolution to organizational operations.

5.6 Area for Further Research

This study concentrated on determining the challenges of devolved governance in the renewable energy sector in Kenya and to establish the response strategies to the

challenges of devolved governance in the sector. Change has occurred in the renewable energy sector all over the country following the implementation of the new decentralized government. This study therefore proposes that future research be conducted in all the counties in Kenya about the challenges of devolved governance in the renewable energy sector, other sectors as well as ways of dealing with the challenges of devolution to organizational operations.

5.7 Limitations of the Study

This study considered limitation as any factor that was present during the study and affected the achievement of the objective of the study. The study faced a limitation as regards to respondents' confidence that the information provided would not be misused but used for the purpose for which it was meant. To overcome this challenge, the researcher assured the respondents that the information they provided would be treated with confidentiality and used for academic purposes only.

Some of the target respondents in some of the renewable energy organizations visited were not available during the interview process due to their busy schedule. Some of the respondents were also engaged in other ongoing activities and hence had no time to fill in the questionnaire. Some of the target respondents were also not available or did not exist in some of the companies hence questionnaire was administered to a substitute of a similar responsibility.

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APPENDICES

Appendix I: Research Questionnaire

Section A: General Information

1. Please indicate the Name of your organization _____
2. Number of years your organization has been in operations
 Below 5 years [] 6-10 years above 10 years[]
3. Please indicate the area of renewable energy that your firm deals in

Solar water heating	[]
Solar lighting	[]
Wind power	[]
Batteries manufacture	[]
Renewable energy Consultations	[]

Section B: Challenges of Devolution to Organizational Operations

4. Below is a list of challenges posed by the devolved governance structure on businesses in the renewable energy in Kenya. Kindly indicate the extent to which you agree with each of these challenges in your organization using the following scale; 1= strongly disagree 2=Disagree 3=Neutral 4= Agree and 5= strongly agree.

Challenges	1	2	3	4	5
Devolved governance has empowered the grassroots' citizenry					
Devolved governance has decentralized decision making					
The county Governments are competing for prosperity					
County Governments have presented growth potential which was initially absent					
Some counties are offering incentives for renewable energy sources					
Devolved Governance has increased the capacity at the grassroots					
Weak institutional capacity at the devolved governments					
Financial spending decisions are made at the County level					
Devolved government has created the need for reduced lead time					

Restrictions on the volume of business to be awarded to firms operating within the County					
Need to understand the dynamics of the County governments					

5. To what extent have these challenges affected the operations of your firm?

Very great extent []

Great extent []

Moderate extent []

Little extent []

No extent []

Section C: Response Strategies to Challenges of Decentralized Governance Structures

6. Below are some of the responses of firms to the challenges of devolved governance in Kenya. Kindly indicate the extent to which your firm has applied each using the following scale; 1= strongly disagree 2=Disagree 3=Neutral 4= Agree and 5= strongly agree.

Response Strategies	1	2	3	4	5
Establishing branches at the County/Sib-County level					
Entering into joint ventures with partners at the County/Sub-County					
Holding community education for on the advantages of renewable energy					
Offering free transportation for customers from the Counties					
Adopting low cost strategy to reach mass market at the County level					
Improving operational efficiency to provide room for low prices					
Differentiating organizational products from other competitors' products					
Segmenting the market for convenient service					
Increasing the marketing and advertisement budget					

7. To what extent have these response strategies improved the competitiveness of your firm?

Very great extent []

Great extent []

Moderate extent []

Little extent []

No extent []

Appendix II: List of Renewable Energy Firms in Kenya

	COMPANY	PRODUCTS
1)	Chloride Exide Kenya Limited	Solar PV
2)	Davis & Shirliff Ltd	Solar PV, Solar Water heating systems, solar street lighting, solar security lights, solar pumps,
3)	Energy Alternatives Africa	Renewable Energy Consultant
4)	Kenital Solar Limited	PV sales, Solar water heaters, wind generators
5)	Neste Advanced Power Systems	Solar PV importers
6)	Sollatek Electronics (K) Ltd	Solar PV and Charge
7)	Solagen Limited	Solar PV, water heater installation
8)	Austral Ken Ltd	PV Solar and solar water system
9)	Telesales Ltd	Solar Systems
10)	Marathon Marketing Ltd	Solar PV
11)	Voltammeter Batteries	Batteries Manufacturers
12)	Wilken Telecommunications	PV and solar water heaters sales
13)	ASP Solar Kenya Limited	Solar PV & water heaters and solar pools
14)	Alpa Nguvu Solar System	Solar PV, water heaters
15)	Animatics Limited	Solar PV
16)	Associated Battery Manufacturers	Batteries manufacturers
17)	BP Solar East Africa Ltd	Solar PV importers
18)	Bob Harries Engineers	Kijito windmills and generators
19)	Amaercan Solar Technology	Solar PV sales and installation
20)	Allas Electronics	Solar PV sales
21)	Botto Solar	Solar systems, energy efficient cooking stoves
22)	Chintu Engineering Works	Solar PV
23)	Creative Innovations Ltd	Lamps, batteries
24)	Electronics and Telecom Lab	Solar PV and Charge Controllers assembly
25)	Happy Go Ltd	PV Systems
26)	Hensolex Ltd	Solar PV

27)	Industrial Robtoics	Solar PV
28)	Interlinks Solar Systems Ltd	Solar water heaters
29)	Kensolar Services	Solar water heaters
30)	Mitha & Company Ltd	Solar PV
31)	Ekeru Jikos Sales	Stoves
32)	Kalyet Ltd	Solar Panels
33)	New Point Industries	Solar system
34)	Petro Solar Inc	Solar systems
35)	Retec Energy Centre	Solar Systems
36)	Solar World (EA) Ltd	Solar PV

Source: (Energy Regulatory Commission, 2014)