PUBLIC PRIVATE PARTNERSHIP STRATEGY AND PERFORMANCE OF PUBLIC SECTOR FIRMS INTHE ELECTRICITY SECTOR IN KENYA

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OFTHE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION FACULTY OF BUSINESS AND MANAGEMENT SCIENCES, UNIVERSITY OF NAIROBI

NOVEMBER, 2022

DECLARATION

This research project is my original work that has not been presented for a degree in any other University. For any other award and where other people's research was used, they have been fully acknowledged. No part of this project should be reproduced without authority of the author or/and the University of Nairobi.

Sign……………………………… Date……**27TH NOVEMBER 2022**……….

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D61/81712/2015

This research project has been submitted for presentation with my approval as university supervisor.

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ABBREVIATIONS AND ACRONYMS

CMA:	Capital Markets Authority
CSR:	Corporate Social Responsibility
DAC:	Development Assistance Committee
EU:	European Union
FIT:	Feed in Tariffs
GoK:	Government of Kenya
ILO:	International Labor Organization
IPPs:	Independent Power Producers
JV:	Joint Venture
KIPPRA:	Kenya Institute for Public Policy Research and Analysis
LCPDP:	Least Cost Power Development Plan
LoS:	Letter of Support
MoEP:	Ministry of Energy and Petroleum
MoF:	Ministry of Finance
OECD:	Organization for Economic Co-operation and Development
PIPs:	Privately Initiated Proposals
PPP:	Public Private Partnership
PPPs:	Public Private Partnerships
SDGs:	Sustainable Development Goals
SIDA:	Swedish International Development Corporation Agency
UN:	United Nations

ABSTRACT

Public Private Partnerships (PPPs) are contractual agreements between a public agency or public-sector authority and a private-sector entity that allow for greater private sector participation in the delivery of public goods and services that leads to developing an environment that improves the quality of life for the general public. The study sought to identify the impact that the PPP strategy had on performance of public sector firms in Kenya's electricity energy sector. The study adopted qualitative approach. The study focused on six (6) public sector firms in the electricity sector in Kenya. Data was collected through face to face interviews by use of an interview guide. Content analysis was used to analyze the data. The study findings showed that PPPs were adopted mainly as a way of mitigating high cost of energy development projects. In addition, the study concluded that all the projects earmarked for delivery through PPPs are part of the government's long term development agenda. The study also concluded that the Ministry of Finance and Planning as well as the Ministry of Energy are critical to the success of Public Private Partnerships and that transaction costs varied with the highest being 15% while the lowest was between 3 and 5% of the entire project cost. The study made recommendations based on the findings that public firms engaging in capital sensitive PPPs should set up measures that eliminate the risk of failure. The study also recommends that more research to be conducted on PPPs and better guidelines and policies on PPPs to be formulated in order to enhance the performance levels and success rates of PPP projects in the energy sector and beyond. Moreover, the study also recommends that public firms should align their organizational objectives to match the needs of the public they are mandated to serve. The study further recommended that government institutions should provide training to the staff responsible for PPP projects so as to equip them with the necessary skills and capacity to carry out feasibility studies. The study also recommended further studies in PPPs carried out in different sectors of the public in order to make a comparative study of the different sectors.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Public Private Partnerships (PPPs) are contractual agreements between a public agency or public-sector authority and a private-sector entity that allow for greater private sector participation in the delivery of public services, or in developing an environment that improves the quality of life for the general (Witters, Marom & Steinert, 2012). In such collaborations, the private sector implements projects or delivers services that would otherwise be delivered by governmentagencies. These collaborations offer a different way to procure huge public infrastructure projects, especially for governments that are short on cash. In United States, Emerging works suggest that PPPs have indeed led to substantial gains (Buse & Tanaka, 2011) and contributed to addressing these pressing global problems. However, the cumulative positive impact of PPPs is neither established nor properly tested (Boyer, 2018).

Opportunities for PPP in the electricity energy sector in the larger Sub-Saharan Africa and specifically in Kenya are premised on the fact that there are infrastructural backlogs and capital investment deficit (Aitken, 2014). According to World Bank (2000) Africa has an estimated infrastructural gap of approximately US 35 billion dollars every year; with 80% of this budget going towards the energy sector. Kenya is competing in the global market with an aim of becoming a middle-income country by year 2030. Central to the achievement of this strategic development goal is the production and distribution of reliable electricity energy across the country.

Consequently in a bid to achieve Vision 2030 goals, Kenya has increasingly adopted PPP strategy. This has been informed by the growing disparity between Kenya’s capacity to generate more resources and the insatiable infrastructural demands of the public (Ribiero & Dantes, 2015).

PPPs involvement in meeting the infrastructural gap is based on the Transaction Cost theory (Williamson, 1985) that posits that private sector involvement in public sector development is appropriate because the production cost of the private sector is lower than if the production cost was purely borne by the public sector. Institutional Theory (Scott, 2008) makes a case for each institution in the society to be engaged meaningfully in a sphere where they have the highest resilience and are good at.

PPPs are also premised on the New Public Management theory (Rowley, 2008) approach that was developed in a bid to improving public sector efficiency by adopting private sector models of management hence making public service professional.

Since PPPs have become very popular with governments around the world (Hodge and Greve, 2017), it is imperative that governments measure the performance of PPPs so as to guide public administrators and policy makers in evaluating the effectiveness of PPPs in achieving set goals (Koontz and Thomas, 2012). This research will therefore take a descriptive approach where it seeks to identify and describe PPPs success factors or key performance indicators in the infrastructure sector and more specifically in the electricity energy sector in Kenya. The research population will comprise of the public sector firms that are involved in the production and distribution of electricity energy either as regulators or project implementers. The study will be a census since the population in question is dissimilar. An interview guide will be used to collect data which will be analyzed using descriptive analysis as well as content analysis.

PPPs are also premised on the New Public Management theory (Rowley, 2008) approach that was developed in a bid to improving public sector efficiency by adopting private sector models of management hence making public service professional.

1.1.1 Concept of Public Private Partnerships

A partnership is a connection between different parties based on mutually agreed-upon aims anda shared understanding of the most sensible division of labor based on each partner's distinct comparative advantages (Brinkerhoff, 2002). PPP is a contractual relationship between a private sector entity and the government, a government entity, or a public-sector entity in which the private sector provides public goods and services for a set period of time in exchange for payment from the public-sector entity, the end user, or a combination of the two. It is a co-operation between the public and private sectors that is built on the expertise of each partner that best meets the clearly defined public needs through appropriate allocation of resources, risks and reward

According to Pongsiri (2002), immense benefits accrue to governments and the private sector by adopting PPP. The citizens get to benefit from PPPs through effective infrastructural services, ease of fiscal constraints and provision of services (World Bank, 2010). PPPs entail harnessing of private sector management and commercial skills to bring discipline in the public service infrastructure. The overall aim of PPPs is to achieve value for money for the tax-payer by ensuring the public projects are done within set time, set budget and expected quality (Catsi, 2018).

According to the World Bank (2015), well-structured PPPs will provide appropriate incentives forbusinesses to maintain high performance levels. It argues that PPPs also tend to realign incentivesin the long-term services contracts so that responsibility for delivery of services is transferred to the party that stands to gain more than any other. Vision 2030 notes that energy costs in Kenya arehigher than those of its competitors. Vision 2030 therefore makes it a priority to grow the electricity generation and improved efficiency in consumption and encouraging private sector involvement in production of electricity. Vision 2030 identifies PPPs and joint ventures as some of the key strategies to be employed to try and bridge the electricity energy deficit in Kenya (IEA2015).

1.1.2 Public Private Partnership Strategy

Achieving organizational goals is a complex concept that calls for critical thinking, analysis, intuition and experience on how to utilize organizational resources (Baiya, 2020). Porter (1980, 1985) views strategy from the perspective of competitiveness, differentiation and focus. He states that strategy enables an organization acquire a unique position in the industry that will enable the organization out-do other businesses offering similar goods or services. Strategy therefore is a mediating factor between an organizations internal and external environment (Mitzberg, 1987). Assuch, strategy is pursued in a bid to promote co-operation between organizations; even with would-be competitors. Such strategies could be informal agreements to formal outfits like joint ventures and mergers (Astley & Fombrun, 1983).

PPP strategy entails coalitions, collaborations and strategic alliances (Porter, 1985). He argues that PPP strategy is one way in which can achieve competitive advantage. To accelerate business growth and achieve competitiveness in the global market, it is imperative that business relationshipbe based on partnership and not ownership (Drucker, 2001). Partnerships help to beat competition, pool resources, and compliment capacity of partners as well as gain entry into new markets.

Kenya's adoption of PPPs envisages joint ventures between the GoK, working through the semi- autonomous government agencies (SAGAs) or mainstream ministries, and private investors. PPP strategy allows government and public institutions to attain sustainable competitive advantage in offering public goods and services (Uddin and Akhter, 2011).

1.1.3 Organizational Performance

Organizational performance plays a vital role in achieving strategy. Performance management does not operate in a vacuum; it thrives in an environment that has goal clarity so as to improve the effectiveness of performance management (Boyle, 2018). Performance management is importantfor the effective and efficient management of resources in an organization.

Organizational performance refers to the attainment of the ultimate objective as set out in the strategic plan (Musyoka, 2012). Performance management deals with showing how an organization or individual attained their goals. It is important to measure the performance of PPPs so as to ensure the intended purposes and objectives have been achieved. The main purpose of measuring performance of PPPs is to achieve value for money (Yuan, Miroslav and Li, 2008). It is important to note that performance may be understood differently depending on the person involved in the assessment of the organizational performance (Gavrea, Ilies and Stegerean, 2011). Koontz and Thomas (2012) also agree that measuring performance of PPPs can be hard to measure due to the different actors who view performance from different aspects. Government may view performance in terms of the extent to which public services and goods are provided while privatesector firms may view performance from profits made from a business venture. It is therefore important that an organization defines a set of parameters to measure performance effectively.

The purpose of measuring performance in the electricity energy sector is to identify opportunities to enhance electricity production and distribution performance and the incidental value for money for the government and the end users. Electricity energy sector impacts should be measurable andcapable of being monitored so as to identify areas of improving production and distribution of electricity (Aitken, 2014).Well-structured PPPs encourage effective, affordable and better managed energy infrastructure that delivers better value for money for the citizens of Kenya. The current PPP framework in Kenya aims at effectiveness and scalability (PPP Act, 2014).Setting upPPPs can be expensive, time-consuming and complex. It is therefore vital for the GoK to know how and when PPPs create value so as to decide when to use PPPs and when not to (World Bank, 2016).This study seeks to pursue performance management from the Balance Score Card (BSC) approach as proposed by Kaplan and Norton (1992). The BSC takes a four-pronged approach to performance in that it looks at financial aspects, customer satisfaction, internal business processes and learning and growth which are all essential for long-term goal achievement.

1.1.4 Electricity Sector in Kenya

Energy is one of the critical components of economic growth and has productive inter-linkages with other socio-economic activities (Kippra, 2018). The main sources of energy in Kenya are biomass, petroleum and electricity. Electricity in Kenya is generated from hydro, thermal, wind and geothermal. The GoK is planning to raise the electricity capacity where 55% will consist of thermal energy and 32% of geothermal (IEA 2015). The current electricity demand in Kenya is 1.91 megawatts (MW) yet the peak load is expected to gradually increase to 19,200MW by 2030(MoE, 2013).

To address challenges in the energy sector, the GoK has developed strategies to increase installed electricity capacity, expand transmission and distribution networks and adopt renewable energy sources. One of the key strategies the GoK intends on exploiting is strategic partnerships with firms; whether public or private (IEA, 2015). Sessional Paper number 4 of 2004 noted that the challenges facing electricity sector included weak power transmission, poor distribution structure due to limited public investment in power system upgrading and high cost of power from Independent Power Producers (IPPs).

Subsequently, following the liberalization of the energy sector in 1997, the private sector was allowed to produce electric power commercially through the Independent Power Producers (IPPs)(IEA, 2015). There are currently fifteen IPPs in Kenya.

1.1.5 Public Sector Firms in the Electricity Energy Sector in Kenya

Governments create parastatals or public sector firms to be of strategic importance. The operations of such public sector firms need more attention, focus, specialized knowledge and technical skills (Baiya, 2020). Normal government operations are usually bureaucratic and aimed at providing public goods and services. On the other hand, private sector firms are usually business oriented. These firms are anticipated to perform highly, are self-sustaining and able to engage in healthy competition with firms in similar industry.

Consequently in 2006, the GoK through the Energy Act (No.12 of 2006) separated the generation of electricity from the transmission and distribution of the electricity.There are three parastatals that deal with transmission and distribution namely; Kenya Electricity Transmission Company Limited, Kenya Power and Lighting Company Limited and Rural Electricity and Renewable Energy Corporation. There are also three state corporations that deal with generation of electricity namely Kenya Electricity Generating Company (KenGen), Geothermal Development Corporation and Nuclear Power and Energy Agency.

Besides generation and distribution of electricity, there are also other public sector entities that deal with regulatory and oversight responsibilities in the electricity sector. These include; Ministry of Energy and Petroleum (MoEP), Ministry of Finance, Capital Markets Authority (CMA), Public Private Partnerships Unit (PPP Unit) and Energy and Petroleum Regulatory Authority (EPRA).

According to Baiya (2020), governments world over exists to make available public goods and services to its people. This then results in a government earning a good image and reputation among its citizenry by the way it manage its public affairs and delivers its services. To respond to the ever-increasing demands of the populace, governments through their public entities and institutions have increasingly adopted private sector ideals, practices, disciplines and managementinterventions in service delivery (Chu and Wang, 2002).

1.2 Research Problem

PPPs are popular with governments around the world but its success still remains highly contested (Hodge and Greve, 2017). Countries have developed PPPs for different reasons which include addressing fiscal deficits, budgetary constraints, huge differences between demands for infrastructure vis-a-vis government’s ability to meet the demand (Chowdhury *et al*, 2011). Despitethe adoption of PPPs, majority of countries still experience barriers to the full benefits that can accrue to the implementation of PPP strategy (Leiringer, 2003).

Yuan (*et al* 2009) also confirm that same by averring wide adoption of PPPs in the global infrastructure market is not achieving expected performance hence resulting to inefficiency and ineffectiveness in the projects undertaken. Klijn and Koppenjan (2016) studied the increased adoption of PPPs in Netherlands. The study focused on interrogating the nature and characteristics of PPP contracts. The study however was not specific to the energy sector or electricity sub-sector. This study found that measuring performance of PPP projects was quite complex because of the multiple parties involvedwho also tend to have completely different goals. Similarly, the Labor Party of United Kingdom has over the years employed PPP but more as a governance tool as well as a style of governance.

Musyoka (2012) undertook a descriptive study to investigate the role of PPPs in determining the success of public sector firms in Kenyan housing sector. In addition to sound institutional and legal framework, stability in the political and economic environment, she also found that trust among partners was crucial in attaining successful partnerships. The study however focused on the concept of PPP but failed to interrogate the performance of public entities that are engaged in thesaid PPPs.

Pedo *et al* (2017) sought to investigate the effects of PPPs framework on the success of road sector infrastructure in Kenya. They took a descriptive and exploratory approach where they examined aspects of performance of PPPs as a macroeconomic approach to infrastructural development. Though the study concluded that it was imperative that government formulates a clear and well-understood procedure for identification and selection of partners so as to create investor confidence and certainty, it focused more on macroeconomic factors and failed to address public sector institutional performance. Gikonyo (2020) undertook a cross-sectional study on how PPP strategy affected performance of Kenyan parastatals. The research found that PPP strategy correlated positively with performance of these public sector entities. However, the study took a quantitative approachto data analysis and interpretation by capturing the opinions and perceptions of respondents hence leaving a qualitative approach gap.

There is therefore a research gap as it is not clear what factors really make PPPs such a successful strategy in developing the Kenyan electricity sector. This research therefore seeks to remedy the following question; how does the PPP strategy impact performance of public firms in Kenya's electricity energy sector?

1.3 Research Objective

The aim of this research was to identify the influence of the PPP strategy on performance of public firms in Kenya's electricity energy sector.

1.4 Value of the Study

This study is invaluable to different stakeholders. Firstly, the findings of this study are valuable to the Government of Kenya (GoK) through its public-sector entities. This is because these public sector firms will be able to evaluate the effectiveness of the PPPs entered into and their impact on the respective sectors and overall economy. This will in turn guide the GoK in assessing the impact of PPPs as well as development of policy and legislative reforms on matters appertaining to PPPs.

County governments also stand to gain a lot from this study. This is because counties have been tasked with a raft of responsibilities under Fourth Schedule of the Constitution (2010) yet the budgetary allocation is not commensurate to the responsibilities. County governments shall benefitfrom best practices in PPPs that will see to it that counties partner with private investors to achievethe county goals.

The study is also beneficial to private investors and development partners who would like topartner with the GoK to advance and achieve their mutual goals and aspirations. This is because the study will expose areas of partnership in the energy sector that have not been explored and challenges to surmount to achieve full benefits of PPPs.

This study is instrumental in adding to existing body of knowledge on PPPs as well as act asan excellent research resource for researchers and academicians in this area of study. It will also provide areas of further research on this topic or related areas that will in turn lead to an expansivebody of knowledge on PPPs.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents theoretical review on PPPs and a literature review of PPPs impact of infrastructural development. The study then proceeds to interrogate the success factors influencingPPPs. Generally, this chapter will focus on literature by other scholars on the use of PPPs by governments across the world.

2.2 Theoretical Foundation

An investigation of literature on theories of strategic management suggests that theories are categorized according to the nature of relationships between public private partnership strategy and performance. Thus this study assessed Institutional theory, New Public Management Theory, Transaction Costs theory and their applicability in the study.

2.2.1 Institutional Theory

This theory is premised on the concept that the different aspects of society is made up of institutions (Najeeb, 2014). To put it another way, the focus is on the more robust, deeper features found in social structures, especially the processes which through these structures (structures like rules, routines, norms and schemes) become instituted as accepted authority for guiding social behavior. In essence, how rules, routines etc. become established as accepted authority.

Regulative, cognitive, and normative frameworks, which shape both human and organizational behavior, are formal and informal features of this institutional context (Scott, 2007). The official restrictions are made up of laws and rules. By outlining the rules of the game, monitoring them, and enforcing compliance, these laws aid in guiding the behavior of businesses. Values and norms are the key informal factors that influence the behavior of stakeholders such as employees, managers, and consumers in a given country (North, 1990).

The national culture is embedded in these unofficial features (Hofstede, 2001). Cultural considerations have an impact on managerial costs as well as how risk is appraised in international markets. As a result, various contexts have varying quantities of resources and institutions with varying levels of efficacy (Demirbag et al., 2008).

As a result, institutions are frequently useful in describing, explaining, and predicting actual organizational behavior, lowering risks and ambiguity in international business strategy (Jansson 2007). As a result, these institutions have an impact on transaction and production costs, as well as the profitability of businesses (North 1990).

2.2.2 New Public Management Theory

According to the UNDP (2015), the 21st Century has witnessed a paradigm shift in the delivery of public service and administration. The UNDP attributes this to globalism and provision of multiple public goods and services. This New Public Management (NPM) approach was therefore devised in an attempt to make government services more "business-like" and efficient by employing private-sector management principles. This theory thrives on and promotes the principles of effective control of public finances, economic use of public funds, cost-effectiveness, establishingand identifying goals, ongoing performance monitoring, as well as handing over responsibility tosenior management are all principles that NPM follows. NPM promotes the public sector's acceptance and active use of private-sector approaches.

Competition, delegation, performance, and responsiveness, according to McCourt (2013), provide yardsticks for regulating bureaucratic behavior and generating better outcomes. NPM has led in significant improvements in government management. In the government sector, NPM emphasizes inputs and outputs, as well as instilling performance management (Dunleavy & Hood, 1994). According to Nunberg (1992), the effectiveness of the NPM approach in developing countries is contingent on favorable institutional and political conditions.

There must be political goodwill for NPM strategy to be successful (Peters & Savoie, 1998). Linkages between non-government organizations, private firms and public sector are extremely important to the growth of the capacity of public sector are very critical to the development of government capacity to deal with multifaceted issues and attain mutual benefits (Goldsmith & Eggers, 2004).

2.2.3 Transaction Costs Theory

According to the Transaction Cost Theory, it is not merely enough to compare to the cost of production of public goods and services by the public sector *vis-s vis* private sector (Williamson, 1985). In addition to production costs, transaction costs resulting from contract initiation, completion, and monitoring, as well as contract implementation, must be included.

Inclusion of private partners is only permissible from the standpoint of transaction cost theory when the sum of production and transaction costs is less than that incurred by purely public task fulfillment (Budaus & Grub 2007). The quantity of transaction costs is largely determined by the kind of the capital to be invested in a given transaction (Obermann 2007). PPPs are so problematic when it comes to specific investments or when contract compliance and/or realization of the initially envisaged transaction connection are highly dependent (Muhlenkamp, 2006).

2.3 Determinants of Success of Public Private Partnership Strategy

These benefits that accrue to adoption of PPPs are subject to certain factors that ensure the success of PPPs. According to Sabry (2015), the presence of a solid institutional framework is a crucial predictor of PPP implementation. The activities of government agencies and regional institutions in charge of PPP agreements can be attributed to this (Boyer, 2018). There are institutions supporting and popularizing PPP in the majority of nations with many years of expertise in planning and implementing projects. They are usually government entities or are supervised by the Ministry of Finance, Economy, or Transportation. They are mostly, if not totally, funded by the government.

The regulatory environment, including legal and policy structure, is another important factor. Availability of a strong regulatory framework encourages private investment in PPP (Pongsiri, 2002). Each partnership's execution should be based on a solid legal foundation (Catsi, 2018). These rules should make it easier to enter the market, increase competition, and improve service quality. According to Torres De Mastle, Encinas, Farquharson, and Yescombe (2011), governments can secure the success of PPPs by using a solid framework.

Exchange rate risk is another factor that influences the success of the private sector in PPPs. Indeed, the majority of Infrastructure projects in under-developed countries are funded through considerable sums of foreign capital (Hodge & Greve 2013). As a result, investors are affected not just by country risk but also by currency risk. Foreign currencies are required for debt repayment and dividend payments, although revenues and incomes are normally accrued in local currency. As a result, unanticipated devaluations might drastically affect a project's profitability.

2.4 Organizational Performance of Public Sector Firms

Performance is key to achievement of strategy; whether in the private or public sector. Performance management does not function alone; it thrives in an environment that has goal clarityso as to improve the effectiveness of performance management (Boyle, 2018). A set of fiscal and non-fiscal measures that provide information on what extent objectives and results have been met is known as performance (Lebans and Euske, 2006).

The core of performance management is an organization's strategic objectives (Solomon and Young, 2007). Value for Money (VfM) is a critical component of best value, mostly in public sector. According to Yuan et al (2009), measurement of public sector investment performance usually consist of five measurement factors. These factors are; physical qualities of a project, fiscal and marketing indicators, creativity and knowledge-transfer indicators, shareholder’s indicator andprocess pointers.

However, one of the challenges of performance measurement in infrastructure projects under PPPor otherwise is that performance is focused on the end-product; that is, KPIs are established to evaluate the project upon completion and hence not able to evaluate performance at each stage of the life cycle of the project (Haponava & Al-jibouri,2012).

2.5 Organizational Performance of Private Sector firms

Governments devote a significant amount of time to ensuring that the business environment is conducive to private investment. Private sector therefore is the component of the economy that is not owned by the government. It refers to individual persons' direct or indirect ownership of formal or informal economic units. These businesses are typically expected to profit from investments made by selling goods and services in a competitive market (ADB, 2007).

Organizational performance refers to the results of success or market position on performance (Hooley, Greenley, Cadogan and Fahy, 2005). It measures how well a company meets its market-oriented and financial objectives.

Organizational performance in private firms is usually determined by financial performance, market performance and customer experience (Musyoka, 2017). Private organizations mainly focus their performance measurement on financial measures like profit margin, return on investment (ROI). Private institutions also focus their performance on market performance which includes how well a partnership delivers social services to the public through PPPs.

2.6 Empirical study and knowledge gaps

In underdeveloped nations, private sector engagement is tied to a broader view that government red-tape is usually ineffective and does not respond to market needs therefore necessitating the rule of demand and supply where private sector participates actively leading to reduced cost and improved quality of public goods and services (Oballa, 2014). Performance measurement and management of PPPs is therefore important as it presents an effective tool to help determine goodvalue for investing in public sector through PPPs. To measure performance of PPPs, appropriate key performance indicators must first be determined.

Accurate analysis of the performance of the energy sector is important so as to inform the government of the effectiveness of using PPPs as a source of alternative funding.

This study will seek to address several contextual research gaps, a number of conceptual gaps and methodological gaps. The contextual gap in that public private partnership strategy concepts had not been sufficiently studied in the context of performance as addressed by this study. Lack of unanimity on the effect PPP strategy on performance and inconclusiveness of the effect of PPP strategy on performance in energy sector in Kenya constituted the conceptual gaps.

Klijn and Koppenjan (2016) studied the increased adoption of PPPs in Netherlands. Their study however only focused on interrogating the nature and characteristics of PPP contracts and the effect these had on the overall success of projects undertaken through PPP. The study however was not specific to the energy sector or electricity sub-sector. This study found that measuring performance of PPP projects was quite complex because of the multiple parties involved who also tend to have completely different goals. Similarly, the Labor Party of United Kingdom has over the years employed PPP but more as a governance tool as well as a style of governance.

Hodge and Greve (2017), found that funding projects through PPP strategy is not viewed as government borrowing to fund infrastructure development. However, this study focused on the macroeconomic aspect of PPPs and failed to identify the success factors of PPP as a strategy. In Italy, Carbonara, Constantino and Pellegrino (2013) interrogated the implementation of PPP strategy and rightly argued that it was prudent to review the impact of PPPs across a particular sector as opposed to across countries. This is because each sector is unique and would have its own set of analysis and comparison framework. Carbonara *et al (*2013) appreciate the different prospects and threats for PPPs presented by different legal, regulatory and investment frameworks that exist in the different spheres of public sector.

ESCAP (2011) also found that the unique nature of the sector in question greatly impacts the role of the PPP both at design and planning stage. Aitken (2014) identified some of the challenges facing the roll out of PPPs in the energy sector in Africa and most especially in South Africa to include high transaction costs throughout the PPP project, bureaucratic red-tape of government offices, political instability that threatened the long-term PPP contracts and lack of adequate public funds to incentivize the private sector. He stated four success factors to explore in investigating the impact of PPPs which included realigning politics with the development vision of the country, establishment of regulatory and fiscal framework to support PPPs, adequate financial instruments and proper technical support. He based his survey on the wide energy sector yet each sub-sector under the energy sector is unique in its production, transmission and regulation.

Aslam and Rawal (2018) interrogated role of PPPs in ensuring access to post-primary education in Ghana. Their study took a cross-sectional research of the vocational education and technical training sub-sector. Though this study found that the success of PPP as a strategy was dependent on the availability and use of policy and regulatory framework in the education sector, the methodology and context differs from the current study.

Maher and Samir (2018) sought to study the role of environmental factors to the performance, or otherwise, of PPPs in the aviation sector in Egypt. Though their study was in a different context and adopted a comparison case study approach, it found that political and economic stability coupled with sound legal framework were lauded as critical success factors of implementing PPPstrategy.

Musyoka (2012) carried out a descriptive study to investigate factors that influenced the success of Kenya's housing sector's PPPs. In addition to sound institutional and legal framework, stability in the political and economic environment, she also found that trust among partners was crucial in attaining successful partnerships. The study however failed to interrogate the performance of public entities that are engaged in the said PPPs. Pedo *et al* (2017) sought to interrogate effects ofPPPs structure on the success of road infrastructure in Kenya.

The study took an exploratory and descriptive approach where they examined the macroeconomic aspects of PPPs success. Though the study concluded that it was imperative that government formulates a clear and well-understood procedure for identification and selection of partners so as to create investor confidence and certainty, it focused more on macroeconomic factors and failed to address public sector institutional performance.

Gikonyo (2020) undertook a cross-sectional study on how PPP strategy affected performance of Kenyan parastatals. The research concluded that a positive correlation existed between adoption of PPP strategy and performance of these public sector entities. However, the study took a quantitative approach to data analysis and interpretation by capturing the opinions and perceptions of respondents. This therefore leaves a gap for qualitative approach.

There have been several researches conducted on PPPs that have covered one of the four areas; providing explanation for the rise of PPPs especially among governments, discussing outcomes ofPPPs, and decision making analysis of when to apply PPPs and an examination of the criteria for successful PPPs. The geographical, political, economic and contextual differences of the studies differ from Kenya and hence the findings cannot be applied in Kenya without further studies. The local studies also focused on other aspects of PPPs other than how public-private partnership strategy influenced success of public firms in Kenya's electricity sector. This study is therefore pursued with the aim of filling these conceptual, contextual and methodology gaps.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the blue-print for conducting the research. It covers the design of the research, the target population, data collection methods and how analysis of data will be done. The research will adopt a case study approach since the number of intended respondents is quite small; that is six (6) organizations. Qualitative data collected will be analyzed using content analysis method.
This will allow for and in-depth and thorough understanding of the interaction between the adoption of PPP strategy and how the same influences the performance of these firms in the electricity sector in Kenya.

3.2 Research Design

The research design to be used in this research will be case study research. Case study research design will be adopted since the study seeks to obtain a thorough, multi-faceted appreciation of PPP strategy and performance of public sector firms in the electricity energy sector in real life context which will be generalized to other sectors in Kenya (NCBI, 2011). According to McCombes (2020), case study research design is appropriate to describe, compare, evaluate and understand different aspects of a particular phenomenon in an in-depth manner.

3.3 Data Collection

This research predominantly relied on primary data. The primary data was collected from six (6) respondents through an interview guide administered to the representatives of the these electricity energy sector firms in the public sector. The interview guide was administered to at least one respondent in each organization.

The respondents targeted are those officers who are in involved in the formulation and implementation of strategy, at strategic level of management and are involved with PPPs in these firms. These include but not limited to Chief Executive Officers, officers in charge of strategy or strategic partnerships.

The interviews were conducted through video conferencing calls due to the COVID 19 containment restrictions as well as the hectic work schedules of the respondents.

Data was collected through Key Informant Interviews and in-depth interviews conducted through teleconferencing calls. This method of data collection was preferred as the sample size is small and hence more efficient and effective to use qualitative analysis.

3.4 Data Analysis

Data analysis is the whole process which starts immediately after data collection has been completed and ends at the point of interpretation and processing of the results (Kothari, 2007). Since qualitative data was collected in this research, the data was analyzed using content analysismethod.

Qualitative data was analyzed using content analysis, where the data was coded into theoretically derived categories for the identification of the critical success factors of PPP strategyin Kenya’s electricity energy sector.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter focused on data analysis, findings and interpretation. Results were presented through content analysis. The analyzed data was arranged under themes in line with the objectives of the study.

4.2 Findings and discussion on response rate

Out of the 6 respondents targeted by the researcher, the researcher was able to interview all six of them; one officer from each public sector firm in electricity sub-sector. This represents 100% response rate.

The respondents from the various public firms involved in the study were coded as herein below.

RESPONDENT ORGANIZATION	**CODE**	**ROLE PLAYED IN ELECTRICITY SECTOR**
Geothermal Development Corporation	**1**	Production/Generation
Kenya Electricity Generating Company	**2**	Production/Generation
Kenya Electricity Transmission Company Limited	**3**	Transmission and Distribution
Kenya Power and Lighting Company	**4**	Transmission, Distribution and Retail
Nuclear Power and Energy Agency	**5**	Production/Generation
Rural Electrification and Renewable Energy Corporation	**6**	Transmission

Summary of public sector firms in the electricity sector in Kenya
Source: Executive Order 2/2013, May 2013

4.3 Findings and discussion on Introductory Questions

As an introduction, the researcher sought to establish the positions held by the respondents in their respective organizations as well as the number of years they had held the said positions.

Respondent 1 was a Senior Statistician and had worked with the organization for 11 years. In that time, she also served as the officer in charge of PPPs for 2 years. **Respondent 2** indicated that she was an economist and worked as the Chief Strategy Development and Alignment Officer and had been in the organization for 11 years with 2 years in the current role. She also stated that she worked as the officer in charge of PPPs in the organization. **Respondent 3** was an Economist and worked as the secretary of the PPP Project team at the organization. She had worked with the organization for 9 years. **Respondent 4** was an Engineer and currently worked in the Power Purchasing and Planning Division and had worked at the organization for 12 years. Previously, this respondent worked as the Transmission Planning Engineer for 7 years at the same organization. **Respondent 5** was a Director of Strategy and Planning where PPPs were managed and had held the position for 2 years. Before that, she worked at one of the firms engaged in production and generation of electricity energy and was seconded to the current organization as it was a newly incorporated state agency in the electricity sector dealing with generation and production of electricity. **Respondent 6** was a Chief Economist and had worked with the organization for 13 years, with 7 years of experience as an Economist and 6 years in PPPs.

These responses show that the respondents involved in the study were in positions of influence and as such were well-placed to enlighten the researcher on the impact of the PPP strategy on performance of public firms in Kenya's electricity energy sector. In addition, given all of the respondents had more than 5 years' experience in the energy sector, they understood the dynamics of the industry and as such can accurately tell how public private partnership strategy can affect the performance of electricity firms in Kenya.

4.3.1 Findings and discussion on how respondents interact with PPPs

The research sought to understand how the respondents interacted with PPPs in their respective organizations.

Respondent 1 stated that she was a planning officer and hence in charge of strategic planning and management at the organization. She stated that she participated in deciding which projects in the organization are undertaken through PPP and which ones are undertaken through other procurement options. **Respondent 2** stated that as officer in charge of strategy development and alignment, she was involved in ensuring the projects undertaken by the organization are aligned to the Vision 2030, organization strategic plan and that resources are assigned or alternative options of funding are allowed.

Respondent 3 was the secretary to the PPP Projects Team in her organization. She maintained records on PPP projects undertaken by the organization and sits in meetings that evaluate PPP projects.

Respondent 4 represented his organization in thenegotiations of Power Purchase Agreements with the private sector investors in the electricity energy sector.

Respondent 5 stated that the organization was at the nascent stage and that the officer was engaged in evaluating the procurement options for a nuclear power plant and that PPPis one of the options being considered.

Respondent 6 stated that they offered technical support to the Business Development Team on collaboration with partner which includes public private partnerships.

The responses on how the respondents interacted with PPPs show that the respondents hadsufficient hands-on experience in the industry making them ideal for the objectives of the study.

4.3.2 Findings and discussion on whether organizations' strategic plans provided for PPPs

The study sought to establish whether the strategic plan of the public organizations included PPPs.**Respondent 1** respondent in the affirmative that the organization's strategic plan expressly provided for PPPs.

Respondent 2 also affirmed that the organization's strategic plan provided forthe involvement of private sector in the generation of electricity.

Respondent 3 responded that all power projects undertaken and implemented by the organization were provided for in the Master Transmission Plan and Vision 2030.

Respondent 4 has a strategic plan that provides for reduction of power purchase cost and makes a case for prioritization of competitive power cost. The organization's strategic plan encouraged private sector participation to complement the current generation and production of electricity power. **Respondent 5** reported that though the organization was at its nascent stage, the strategic plan expressly provided for PPP as an option for investment in nuclear power.

Respondent 6 responded that the organization's strategic plan was clear that in achieving the goals and objectives of the organization, establishment of collaborations with stakeholders and private investors was key.

The responses given by the respondent's cement the centrality of the strategic plan in organizationsoperating in the electricity energy sector. The strategic plan guides these organizations in resource mobilization, resource utilization and overall performance of the firms.

4.4 Findings and discussion on why these firms opted for PPP as mode of project delivery

4.4.1 Findings and discussion on opting for PPPs to deliver electricity projects

PPPs are complex undertakings that involve several parties and can be costly in terms of time and financial resources. The researcher sought to understand why these firms in the electricity sector still opted to deliver the power projects through PPPs.

Respondent 1 reported that the organization opts for PPPs to reduce the financial burden on the national government. By engaging the private sector, the organization envisaged to lower demandon the exchequer for project financing and lower tariffs for higher efficiency.

Respondent 2 stated that the organization opted for PPPs because electricity generation is very capital extensive and available resources in the organization were not adequate to meet the demand for electricity by the public. Consequently, due to lack of adequate financing, PPPs were seen as an opportunity at alternative financing.

Respondent 3 stated that the reason the organization opted for PPPs was because there was a challenge in exchequer support. Therefore, in a bid to bridge the financing gap, the organization benchmarked with other organizations in the electricity sector that had engaged PPPs and noticed the efficiency gains and significant savings. **Respondent 4** reported that its mandate was to transmit, distribute and retail electricity. This mandate is very capital intensive and hence the organization pursued PPP to supplement limited public sector resources in the financing of power generation projects.

Respondent 5 stated that since nuclear power plants are very expensive and sensitive, any anticipated PPP will be pursued to bridge the financial gap that government experiences. **Respondent 6** responded that available government funding was not adequate for the extensive rural electrification, and hence the reason PPP was pursued to bridge the financing gap

Based on the results, the study established that Public Private Partnership strategy was adopted mainly due to the high cost of development projects in the electricity sector. The public energy firms engaged with private partners in order to reduce their development and operational costs associated with energy projects. These findings are concurrent with those of Aitken (2014) and Oballa (2014) who showed that PPP projects reduce the cost of energy production on the public sector.

4.4.2 Findings and discussion on how these public sector firms identify partners

The study also sought to establish how public energy firms identified key partners. **Respondents 1,2** and **3** stated that the key partners for power plant developments are identified through a competitive process as outlined in the Public Procurement and Asset Disposal Act (2015)(PPADA).

Respondent 4 stated that organizations that play a role in the implementation and approval process of projects implemented as PPPs are considered key partners in the PPP. **Respondent 5** stated that due to the sensitive nature of nuclear power, partners have and will be identified through government to government engagements. **Respondent 6** stated that the organization identifies key partners from key proposals submitted by private investors who are mostly consortium of companies and not individual investors. These consortiums are usually both local and foreign companies.

This shows that the formation of partnerships between public energy firms and private firms in the electricity sector in Kenya is guided by the PPADA Act and as such it is highly regulated. As a result, PPPs have a higher chance of success due to the stringent measures put in place by the law.

4.4.3 Findings and discussion on who are the key partners

When asked who their key partners were, **Respondent 1** stated that the organization has three Independent Power Producers (IPPs) for the ongoing PPP projects. These IPPs are consortiums of foreign companies. **Respondent 2** stated that the partners the organization was working with were consortiums of foreign companies from USA and Japan.

Respondents 3, 4 and **6** indicated that key partners were mostly government and international entities in the energy sector including but not limited to Ministry of Energy, The National Treasury, PPP Unit, Energy and Petroleum Regulatory Authority (EPRA). Other partners the organizations dealt with include PPP Nit at the National Treasury, World Bank (WB), International Finance Corporation (IFC), Africa 50, Power Africa and a few private investors as well as financiers who provide financing and security instruments that make the projects bankable.

Respondent 5 stated that key partners are other governments and government-backed consortiums from Russia, Korea, China and USA.

The findings show that most of the partners working with Kenyan public firms in PPPs are other Government Institutions and ministries, private investors as well as foreign governments especially with regards to development projects. International organizations such as the World Bank are also be involved in the PPPs. This implies that most of the partners are institutions or organizations that share similar development objectives thereby making it easier for them to work together. This is in line with the findings of De Mastle, Encinas, Farquharson, and Yescombe (2011) who showed that PPPs can be created between government institutions, private organizations as well as international partners such as the World Bank.

4.4.4 Findings and discussion on what it would mean to the organizations if the PPPs don't go as planned

Moreover, the study sought to establish what it would mean for the respective organizations if theproposed partnership does not go as planned.

Respondent 1 stated that geothermal development is capital intensive and hence failure in a PPPto go as planned would lead to financial loss that would negatively impact the organization and the government as well as causing the organization to fail in attaining the mandate. **Respondent 2 and 4** stated that their organization would suffer loss of mandate, failure to fulfill strategic objectives, loss of time and money.

Respondent 3 reported that the organization would suffer loss of time and money, fatigue by both the government and the private investor since the PPP process is quite arduous and also bad image and reputation for both the private investor and the governmententity. **Respondent 5** opined that nuclear power projects are extremely sensitive and if a proposed PPP project does not go as planned it may affect the sovereignty ad security of the country. **Respondent 6** stated that it would lead to abandonment of the project which would lead to failure to deliver on the mandate of the organization.

The responses indicate that the cancellation or failure of the PPPs would have significantconsequences ranging from loss of resources such as time and money to failure to attain organization's mandate as well as7 can also result in security issues especially in nuclear projects.

As such, it is important that public firms engaging in capital sensitive PPPs set up measures that eliminate the risk of failure. In addition, some mitigating procedures need to be established in orderto save the project in the event that things do not go as planned. This concurs with the findings of Demirbag et al. (2008) who highlighted the importance of creating mitigations against the failure of PPP projects. In addition, the study agreed with Aitken (2014) who established that failure of PPP results in massive loss of public funds.

4.4.5 Findings and discussion on whether there are mitigation factors in place

The researcher also sought to establish whether the firms involved in the study had set up any mitigation factors in case the projects did not go as expected. **Respondent 1** affirmed that the firm had in place some mitigation factors. The respondent stated that the firm has well-negotiated and drafted contracts which allocate risks well among the parties. There are different development models for the different projects. During contract negotiation and drafting, the firm ensures that there are clauses that protect the firm as well as the private investors. **Respondent 2** stated that the firm always prepares a risk matrix for every project since each project is unique. The respondent emphasized that the key risks faced by the firm included social acceptance of the project by the community, competence of the partners and compliance issues on both the firm and private partner.

Respondent 3 also stated in the affirmative that the firm had a mitigation strategy in place. The respondent stated that the firm ensures that the project case is properly prepared; staffs are taken through rigorous training and capacity building to equip them with adequate skills to negotiate, handle and implement the PPP project as well as identify and allocate risks effectively.

Respondent 4 stated that the firm had a risk mitigation policy in place. **Respondent 5** stated that the firm has developed a clear risk matrix that outlines both technical and non-technical factors. **Respondent 6** stated that the firm had risk mitigation strategy in place through employing thoroughly trained staff.

Based on the results, the study revealed that most of the public energy firms had established contingencies in case the PPPs did not go according to plan indicating that they were proactive and acknowledged the possibility of things going wrong. By planning for this, these firms are able to prepare for all scenarios and can therefore prevent the effects of failure of these projects if and when they arise. The findings concur with those of Hodge and Greve (2013) who showed that risk level influenced the participation of the private sector in PPPs.

4.5 Findings and discussion on whether the projects identified and earmarked for delivery through PPP were included in the national government long term development plan

The researcher sought to establish whether the projects identified and earmarked for delivery through PPP are included in the national government long term development plan including but not limited to Vision 2030, Africa 2063 and Sustainable Development Goals (SDGs).

Respondents 1, 5 and **6** confirmed that the PPP projects undertaken by their firms were encapsulated in the Vision 2030. **Respondent 2** stated that the projects undertaken by the firm were outlined in the government strategy document that is Vision 2030, and the firm's strategic plan. The respondent stated that there is a pipeline of projects to be rolled out and the mode of implementation is what is determined to deliver the project. PPP is a mode of procurement and not a method of identifying a project. It is more of an on-budget or off-budget question. **Respondent 3** confirmed that the PPP projects undertaken are captured in the national government at both national and sector level. **Respondent 4** reported that the projects were included in the Least Cost Power Development Plan (LCPDP) which is the government long-term power development plan.

Based on these responses, the researcher established that all the projects earmarked for delivery through PPPs are part of the government's long term agenda. This highlights the importance of PPPs in helping the government achieve their mandate of service delivery to the public. This is inline with the findings of Kippra (2018) who highlighted the importance of Energy to the long term development agenda of Kenya in terms of manufacturing and industrialization in accordance withVision 2030.

4.5.1 Findings and discussion on the role of the National Treasury on the success of PPP Projects

The researcher also interrogated the role of the National Treasury and planning was in ensuring the success of the PPP projects. **Respondent 1** confirmed the centrality of the National Treasury to the success of PPP projects. The respondent stated that the National Treasury has a Unit dedicated to PPP projects that offers support as well as keep inventory of PPP projects. The National Treasury is a facilitator as it ensures that there is capital for projects run by State-ownedentities which rely on the National Treasury. The respondent further stated that the National Treasury also offers policy guidelines in financial management, borrows funds on behalf of State- owned entities to finance the power projects activities, gives government guarantees including but not limited to Letters of Support and other guarantees.

Respondent 2 stated that the PPP Unit is under the National Treasury. AS such, the National Treasury supports and co-ordinates the PPP process, offers expertise, assists in getting the necessary approvals, conducts and reviews studies on PPPs as well as ensuring the public sector firms are on the right track. According to **Respondent3,** the National Treasury ensures the success of PPPs through capacity building of the members ofstaff involved in the PPP process as well as ensuring the contracting authorities are well equipped with the right skills. The National Treasury also plays the critical role of advisory, transaction advisory, contract management, conducting monitoring and evaluation of PPP projects as well as overseeing the partnerships between the contracting parties and the PPP Unit.

Respondent 4 outlined that the National Treasury approves the projects scheduled to be undertaken through PPP for Privately Initiated Proposals (PIPs). The National Treasury also signs the Government's Letter of Support (LoS) which is meant to cushion the private investors against political events and other risks including expropriation, change of laws and tax regimes or termination due to default. **Respondent 5** and **6** stated that funding for PPP projects comes throughthe National Treasury and that any agreement for funding or partnerships must be signed by the National Treasury.

These responses show that the National Treasury and generally the Ministry of Finance and Planning plays a critical role in the success of Public Private Partnerships by all public firms in the energy sector. This implies that it is necessary for PPP projects to be included in plans by the National Treasury in terms of funding and support for them to be successful and to improve the electricity and energy sectors in general.

These findings are aligned with those of Sabry (2015), who highlighted the role of the Ministry of Finance in the success of PPPs in the energy sector, both in a supervisory as well as in a funding capacity. The involvement of the Ministry of Finance helps to create a strong institutional framework that encourages private partners to be involved with energy sector PPPs.

4.5.2 Findings and discussion on the role of the Ministry of Energy and Petroleum in thesuccess of PPP projects

The study also sought to establish the role of the Ministry of Energy and Petroleum (MoEP) in thesuccess or otherwise of the PPP projects in the electricity sector. **Respondent 1** stated that the MoEP oversees the Energy Policy, defines the roles of the various public sector firms that deal with electricity energy and advises the public sector firms on whether to engage in PPP or not. TheMinistry of Energy also advises which energy projects are required in the energy planning so as toschedule the PPPs. **Respondent 2** indicated that the MoEP helps with policy guidelines, gives support to ensure adherence to policy as well as ensures that the mandate of the Ministry is attained.

According to the **Respondent 3,** the Ministry of Energy plays a facilitative role by engaging the National Treasury and offering policy guidance. The MoEP ensures alignment to projects outlined in the Vision 2030 and international commitments like Africa 2063 and the SDGs. **Respondent 4** opined that the MoEP hosts and chairs the FiT Committee which approves the Expression of Interest and Feasibility studies for the FiT Programme. The MoEP also facilitates the approval of the Letter of Support (LoS) for PPP projects by the National Treasury. According to **Respondent 5,** the MoEP provides policy guidelines, approves potential partners and acts as the core point of engagement with the National Treasury and other national government ministries like Education and Environment. **Respondent 6** stated the MoEP helps in pursuing funds, budgeting, advisory and policy guidelines.

Based on the responses, it is clear that the public firms in the energy sector benefit from the involvement of the Ministry of Energy and Petroleum. As the ministry mandated with the regulation and management of energy development activities, this implies that the MoEP seeks to achieve its objectives as envisioned in Vision 2030 by adopting Public Private Partnerships with different government agencies and organizations.

This is in agreement with the findings of Baiya (2020) who established that the government through the Ministry of Energy seeks to satisfy the energy needs of the country in order to improve the standards of living and to drive productivity through manufacturing and innovation.

4.6 Findings and discussion on whether there was political goodwill for PPP projects

The study also sought to establish whether there was political goodwill for the roll out of power projects through PPP. The respondents were unanimous in their response. They all responded in the affirmative and stated that they had received a lot of support and political goodwill from the ruling class. The respondents expounded that there was acceptance across national and county government of the need for alternative funding as well as the involvement of the private sector in financing of public sector projects. Political goodwill has been expressed through GoK enacted of the FiT Policy, enactment of the PPP Act and the subsequent amendments, ratification of international treaties and conventions, budgetary allocations, policy and institutional frameworks approved by the Executive and Assembly arms of government.

The results showed that the public firms in the energy sector largely have the political goodwill to carry out PPP projects. Political goodwill makes it easier for these firms to deliver their objectives and makes the process much easier for both the public firms and the private partners. Political goodwill enhances the relationship between private firms and the public sector leading to an improvement in the capacity of the public sector and consequently improving the government's capacity to deliver its mandate. This concurs with the findings of Musyoka (2012) who established that the political environment is a key determinant of the success or failure of PPPs.

4.6.1 Findings and discussion on how these firms ensure political support for the PPP projects

The research was keen to find out how these firms ensure that they get political support for these PPP projects considering that government changes every 5 years or so. **Respondent 1** stated that the Energy Policy and laws on PPP majorly protect these projects. They further stated that political support is maintained through robust stakeholder engagement.

Respondent 2 reported that the Vision 2030 ensures perpetuity of projects through successive governments regardless of changes in government regimes. According to **Respondent 3,** the Vision 2030 and Transmission Master Plan ensure that the transmission projects are pursued and budgeted for. **Respondent 4** indicated that the firm ensures that binding long-term contracts are signed with the private investors and thatsuch contracts survive government changes. **Respondent 5** stated that political support is achieved through approved annual budgets, enactment and amendment of necessary laws on PPP as well asVision 2030. **Respondent 6** stated that how these PPP contracts are drafted provides for survival through governments. They also stated that the firm also ensures proper succession planning through government regimes.

The responses show that by adopting long term goals and objectives such as vision 2030 in the energy sector, the public energy firms are able to ensure that they maintain goodwill form any regime that comes into power. This implies that the energy sector is a key part of the government'sdevelopment agenda in the long term and as such, the objectives of these firms are in line with those of the government in the energy sector. The findings are in line with Ribiero and Dantes (2015) who noted that given the main mandate of any government is service delivery, PPP projects tend to exist through more than one regime and their operations exist despite changes in government.

4.6.2 Findings and discussion on how these firms ensure that the PPP projects are adequatelycaptured in the annual budget

The researcher also sought to establish how public energy firms ensure PPP projects are captured in annual budgets and that they are adequately funded. **Respondent 1** stated that the firm has a 20- year business plan, 5-year strategic plan and annual wok plans from which budgets are drawn and sources of these funds expounded. The sources of funds include grants, loans, exchequer or private investor funds. **Respondent 2** stated that since the firm is a commercial entity, the firm prepares abudget which is approved by the National Assembly.

Respondent 3 stated that most of the funding of the firm is from the National Treasury; any additional funds are usually from grants. Finance from private investors is usually ring-fenced for the specific project. **Respondent 4** indicated thatpower purchase costs for operational and committed power plants contracted by the firm are recovered from retail tariffs paid by the customers. Any provisions from the National Treasury are contingent liability due to the exposure by the Letters of Support (LoS) issued by Government.

Respondent 5 said that the firm prepares and forwards budget proposals through the MoEP. Annual budgetary allocations are adequate but not sufficient due to the limited resources. Additional funds are obtained from grants issued by the International Atomic Energy Agency. **Respondent 6** stated that most funding for the projects undertaken by the firm is sourced from theNational Treasury.

The responses show that most of the firms receive funding from the National Treasury and have forwarded their long term and annual budgets to the National Treasury through the MoEP. For firms such as KPLC where they deal with customers directly, they raise additional funding from other sources such as the customers. This implies that these firms have sufficient support from government and have adequate funding in order to achieve their mandate. This is in agreement with Ribiero and Dantes (2015) who show that the Government through the MoEP has a long term plan in Vision 2030 that is broken down into annual targets and budgets for all of the public firmsin the energy sector.

4.7 Findings and discussion on whether these firms have successfully procured PPPs

The researcher sought to solidify the experience these firms had in handling PPPs. The researcher interrogated whether the firm had handled any PPP project, the value or worth of the PPP project as well the current status of the PPP project. **Respondent 1** stated that the firm had only engaged in one PPP project that is still underway; at about 34% completion. The project is valued at 270 million USD.

Respondent 2 stated that the firm had successfully undertaken and completed one (1) PPP project that took the form of Operation and Maintenance (O&M). The project produced 150 megawatts (mw) of electricity to the national grid. **Respondent 3** stated that firm was yet to get all the approvals for the four (4) pilot PPP projects. The process was at the tail end of the preparation stage, with feasibility tests done, a partner identified and transaction advisors approved by the PPP Unit. The value of these projects is estimated at 200 million USD.

Respondent 4 stated that the firm has handled forty- three (43) PPP projects which are at different stages; twenty (20) projects are complete and commissioned, ten (10) under construction and thirteen (13) awaiting construction. The value of the projects varies from one power plant to another based on CapEx (capital expenditure). The estimated value of all these PPP projects is estimated at 6.722 billion USD. **Respondent 5** stated that the firm has no PPP project yet. **Respondent 6** stated that the firm has five (5) PPP projects but was not able to establish the capacity or value.

These responses show that most of the firms had been involved in PPPs in the past. In addition, those firms that had not yet undertaken any PPP projects were considering them or had such projects scheduled for the near future. This indicates that Public Private Partnerships have become the norm especially in the energy sector and as such there is need for more research to be conducted on PPPs and better guidelines and policies on PPPs to be formulated in order to enhance the performance levels and success rates of PPP projects in the energy sector. This is in line with Uddin and Akhter (2011) who showed that the adoption of PPP strategy allows government and public institutions to attain sustainable competitive advantage in offering public goods and services. This backs the findings reported by IEA (2015) that showed that the Kenyan government through public energy organizations has been involved in numerous strategic partnerships with other private and public organizations.

4.8 Findings and discussion on whether the public understand the concept of public goods and services and whether they engaged in civic education during the project period

Generation, transmission and retail of electricity energy is categorized as public goods and services. When using PPPs to produce electricity energy, eventually, the cost of electricity will be borne by the customer. Consequently, the study sought to establish if the public understood the concept of PPPs and the role they play in providing public goods and services.

Respondent 1 stated that most members of public don't understand the role that PPPs play or howthey work in the generation, transmission or retailing of electricity power. Mostly, the public looks at PPPs as a source of profit for the private investor without understanding that the risks and expertise are shared between the government and the private investor. **Respondent 2** said that the public's expectations of PPPs were unreasonable. The public is misinformed about the concept of PPP; that private sector participation in provision of public goods and services is politicized to think it is expensive which is not true. Government alone cannot provide everything and so the public dabbles between not having the public goods and services or having the electricity offeredthrough PPPs.

Respondent 3 stated that the public does not understand the concept of PPP. Government should ensure stakeholders are educated and made aware of projects and mode of delivery so as to assuage the perception that PPPs are expensive. The public's expectations are reasonable considering they don't understand how PPPs operate. They expect quality services forwhat they are paying. **Respondent 4** was of the opinion that the public doesn't understand the concept of PPP. It is a new concept. The public's overriding expectation is affordable power and so their expectations are not unreasonable. **Respondent 5** stated that the public doesn't understandthe concept of PPP and there must be deliberate efforts to educate them on PPPs. **Respondent 6** stated that the public's knowledge of PPPs is scanty and lots of work is required to inform them better.

The responses show that most of the general public are either completely unaware or misinformed on the roles of PPPs and how they affect service and goods delivery of public firms. This impliesthat there is a need for these firms to educate and enlighten the public on the benefits of public firms engaging in PPP projects. This will reduce the politicization of projects as well as enhance public support for PPP projects and this might result in enhanced performance in terms of service delivery. This is in line with the findings of Witters, Marom and Steinert (2012) who showed that the involvement of the general public as stakeholders is important in the success of PPPs.

Based on the responses too, it was evident that there were mixed reactions with some agencies feeling like the public expectations were unreasonable while others felt that they were reasonable. As such, it is necessary for public firms to align their objectives with the needs of the public. This is in line with the findings of Musyoka (2012) who showed that the general public only wants access to public services such as energy conveniently and cheaply.

In addition, the study also sought to establish whether the organization conducted civic education or public participation before, during or after engaging in PPP or when identifying the projects to be undertaken by PPP. All six respondents indicated that their firms conducted civic education and public participation either before, during or after a project. This indicated that these firms are actively engaged in civic education in order to encourage public participation and to show how PPP projects can be used to enhance the provision of public services. The findings are in line with Gikonyo (2020) who established that civic education and public participation of PPPs improves their performance.

4.9 Findings and discussions on whether investors are willing to finance the PPP projects

The study also sought to reveal whether PPP projects are reliable and bankable and whether investors are willing to put in their finances. Additionally, the research also sought to interrogate the average rate of return that private investors stood to gain by investing in such projects.

Respondent 1 stated that yes, the private investors are willing to invest and finance the PPP projects; with an average rate of return of about 15%. **Respondent 2** stated that PPP are reiable and investors are willing finance the projects as long as the PPP is well structured and managed. The investors the firm hasdealt with look at an average rate of return of between 16-21%. **Respondent 3** said that investor appetite in Kenya's energy sector is high. Kenya has been successful in attracting private investor in the energy sector. The private investors engaged were looking at an average rate of return of 18– 21% in generation of power.

Respondent 4 stated that most of its PPP projects had achieved financial close. This has been made possible by the issue of GoK Letters of Support for some projects. Energy and Petroleum Regulatory Authority (EPRA) has gazettes a post-tax return on equity of between 10.5% and 15%. **Respondent 5** stated that investors are willing to invest in PPPs. The PPP projects just need to be packaged in a way that is attractive to the investors. The government aims at 10% economic viability and a rate of return of 12% financial rate. **Respondent 6** stated that the private investors are willing with an expected rate of return of 18-21% on generation of power.

The respondents show that public energy firms have a high number of willing investors since thereare a good number of development opportunities that private partners can invest in along with public firms through PPPs. As such, governments and public firms should encourage more investors to engage with them in PPPs. This backs the findings of Hodge and Greve (2013) who showed that private investors are willing to engage in PPPs due to the better returns.

The study also found that the average rate of return for investments in the public energy firms ranged between 10-21%. This is a high return rate in comparison to other avenues such as government bonds whose return rates are below 12%. This implies that investment in the energy sector are profitable and as such, more efforts should be made to encourage more investors to partner with public firms particularly in the energy sector. This is in line with the findings of Gavrea, Ilies and Stegerean (2011) who showed that PPPs are beneficial for private investors as aresult of higher rate of returns.

4.10 Findings and discussion on whether the existing institutional, legal and policy Frameworks on PPP are adequate

The research sought to interrogate whether there was adequate legal, institutional and policy framework in the PPP sphere and whether there is need for amendment or otherwise. The existence of such frameworks ensures that the procurement process as well as the entire partnership is based on pre-determined guidelines.

This way, such partnerships avoid legal trouble and this gives thema good chance of success given they will be following guidelines that have been proven to be successful in the past.**Respondent 1** stated that there is adequate existing institutional and policy framework on PPP. The existing legal framework is wanting as the development of law has not been in tandem with international standards with regards to PPPs. However, frequent changes in government policies have resulted in project delays. There is need for development of law that allows for registration of community land. **Respondent 2** stated that the PPP Act (2013) was recently amended and is awaiting regulations so as to operationalize the PPP Act (2020). The firmhas an organizational policy on procurement of PPPs and the different methods of managing PPPs. The institutional framework is also adequate as is.

For **Respondent 3,** the PPP Act (2013) was not adequate and hence the need for its amendment and replacement with PPP Act (2020). The firm isawaiting regulations to operationalize the Act. There is no internal policy on PPPs, however the firm is currently working to develop some internal guidelines on PPPs. **Respondent 4** stated that PPP Act (2013) was reviewed in 2020 as it had some inconsistencies. The FiT Policy (2012) is also undergoing review on the Renewable Energy Auction Policy (REAP).

Respondent 5 said that there was need for some changes in the existing laws. Owing to the new nature of the firm and related organizations and regulatory bodies, there is opportunity for laws, policy and regulations to support development of nuclear power industry. There is a regulatory body in place but there isneed to increase the capacity of staff and members of the regulatory body. The responsibilities of the regulatory authority cannot be implemented by the Board as it is currently constituted. **Respondent 6** stated that the existing laws and policy on rural electrification are adequate. Where there is need for amendment, the firm would request through the right channels.

The results indicate that most of the energy firms find the existing frameworks to be adequate. However, a few need to have their policies changed.

As such, this legal and policy frameworks should be approached on an individual basis since different organizations may have different frameworks and therefore require different legal and institutional policies. The findings are in line with Pongsiri (2002) who established that the existence of a legal framework was beneficial to public entities since it encouraged private investment through PPPs. The study was also in line with Sabry (2015) who established that the existence of institutional and legal frameworks were beneficial to the performance of public firms.

4.11 Findings and discussion on whether size of project is a key determinant in deciding to pursue PPP strategy

The researcher was keen to understand whether there was a relationship between the size of the PPP project and the decision to adopt PPP strategy as opposed to the alternative modes of procurement. In the same breath, the researcher also sought to identify the transaction cost of the PPP project vis-à-vis the whole project cost. Transaction Cost here looks at comparative cost of planning, adopting and monitoring task completion under the PPP option (Thomassen *et al*, 2016). **Respondent 1** stated that size matters. However, the respondent clarified that size here is with regard to thefinancial cost of the project and not the physical size of the power plant. For the existing PPP project, the transaction cost was 5% of the project cost. Similarly, **Respondent 2** stated that size was a key determinant in two ways. Firstly, in terms of capital investment needed for the project. Secondly, size in terms of the capacity of the power plant.The process of procuring a PPP is tedious and expensive for both government and the private investor so there must be a cost-valueassessment.

The transaction cost for PPP projects undertaken by the firm stood between 5-10% of the total project cost. **Respondent 3** responded that the size of the project matters in deciding on whether to opt for PPP strategy or not. PPPs are very arduous so it must really be worth the trouble. Some of the key factors the firm considers before engaging in PPPs include; firstly risk. If the risk involved is too small, the project may not attract the private investor.

Secondly, the firm considers the urgency of the project. PPPs take a long time to from approval to commissioning and hence PPPs cannot be used for urgent projects. Thirdly, the firm considers the value of the project. The transaction cost the firm has encountered ranged between 3-5% of the project cost. **Respondent 4** stated that in the energy sector, all the FiT projects (renewable plants below 50MW) have been procured through PPP. The key determinant for the firm is therefore technology and size. The firm worked with a transaction cost of approximately 15%.

Respondent 5 stated that yes, size was a key consideration. Size here is in terms of funding requirement. The firm was looking at a transaction cost of 5% of the project cost. **Respondent 6** responded that size was a key determinant. The firm looks at size as the capacity of the power plant. With regard to transaction cost, the same varies from project to project but generally lies between 5-10%.

These results are in line with the findings of Jooste, Levitt and Scott (2011) who showed that bigger projects are more likely to engage in PPPs because of the high cost of the project. The study also found that the transaction costs varied with the highest being 15% while the lowest was between 3 and 5%. While most of the respondents indicated that the transactions costs were between 3 and 10%, the scale of such projects means that these figures are also very high in context. The public energy firms in partnership with the private companies should come up with ways of reducing the transaction costs. Moreover, given the long term costs of such PPPs, the cumulative cost are high. The results are aligned with Aitken (2014) who established that PPPs especially in Africa tend to have very high transaction costs in comparison to the overall cost of the project.

4.12 Findings and discussion on the benefits of PPP strategy on different stakeholders and how the public firm defined successful PPPs

The study also sought to identify key beneficiaries of PPP strategy and the specific benefits that accrue to them. Additionally, the research also sought to know how these public firms defined successful PPP projects.

4.12.1 Findings and discussion on the benefits of PPP strategy on different stakeholders

The researcher identified three beneficiaries; the public sector firm, the public and the private investor. In the course of the interviews, the respondents added lenders as a key beneficiary of PPPs as well. The responses were tabulated as below.

Respondent	Benefits to the public firms	Benefits to the general public	Benefits to the private investor
1	- The firm benefits from revenue generated from sale of electricity power - Helps attract more investors - Reduce cost of power in Kenya	- Reduced cost of power - Increased employment opportunities - Increased clean energy in the national grid	- Sale and generation of electricity efficiently - Profits or return on investment
2	- Being a commercial entity, there has been increased profits - General growth in the economy	- Availability of electricity - Improved economy	- Increased profits - Positive rate of return on investment
3	- The firm is able to attain mandate in good time - Reduced down-time in transmission of electricity power - Improved image of the firm - Satisfied clients	- Efficiency gains in terms of electricity power - Timey delivery of power projects. Traditional procurement is prone to delays	- New and diversified investment portfolio - Good reputation - Good return on investment
4	- Helps reduce the cost of fuel used in	- Public benefits from cheaper retail tariffs	- High rate of return on investment
	thermal power plants	- Reduction of greenhouse gases emission	

5	- Successful execution of the project - Successful implementation of mandate and strategy	- Cheaper electricity power - More power connected to the national grid	- Higher rate of return on investment - Good reputation that leads to repeat investment
6	- Increased public sector firm assets - Increased pace of achieving mandate	- Supply of more power to the national grid - More customers connected to electricity	- Increased profits - Improved investment portfolio - Improved company image and reputation

Summary of benefits of PPP strategy that accrue to different stakeholders

From the above answers, it is clear that investors' benefit from PPPs as much as the public firms and the general public at large. As such, government institutions and organizations should seek private partners to work together on development projects in order to ensure more projects are commissioned and public service delivery is actualized for more people. The findings are in line with Uddin and Akhter (2011) who found that PPPs were attractive avenues for private investors.

4.12.2 Findings and discussion on how these public firms define a successful PPP project

The study also sought to establish what PPP success looked like for the different public sector firms. **Respondent 1** stated that a successful PPP is when the public firm and the private investorachieve their goals within the set time frame, budget and meets the quality requirements. **Respondent 2** stated that the firm defines a successful PPP as one where the firm successfully procures a partner, implements and commissions the project. PPPs can last even upto 25 years andhence success entails operating the plant for such periods of time and both parties realizing all theplanned benefits. **Respondent 3** stated that the firm defines a successful PPP as one where the project goes to financial close, implemented and runs the entire project within time without significant renegotiation. **Respondent 4** defined success for the firm's PPPs as being constructed or operated in accordance with specified technical specifications and generates expected outputs and outcomes.

This means the PPP is able to pay for the capital cost and earn a return for the investor. For **Respondent 5,** a successful PPP is one that is completed successfully including the technical aspects considering the unique safety and security needs of a proposed nuclear power plant. Success also includes implementing the said project within the specified time and budget without significant deviation or renegotiation. **Respondent 6** answered that success for the firm entailed ability to deliver on the mandate of the firm.

Given that there are different metrics or definitions of success of the PPPs for different the different public sector firms, then the success or failure of the PPP projects should be determined on an objective scale. These are in line with Lebans and Euske (2006) who defined success as the ability to meet the objectives of the organization.

4.13 Findings and discussion on feasibility, likelihood of success and risk management

The researcher sought to establish what kind of risks and challenges these public sector firms faceor are likely to face when implementing PPPs.

4.13.1 Findings and discussion on risks of implementing PPPs

Respondent 1 cited project delays as one of the critical risks in implementing PPPs. **Respondent2** stated that the firm faced four major risks when implementing PPPs. These are; non-performance by the private sector partners, social risks like non-acceptance of the project by communities around the power plants, changes in government policy and changes in tax regime; considering these firms were dealing with third parties. **Respondent 3** noted that the firm faced the risk of availability of right of way or way leaves because transmission masts usually pass through privateand. Land is very emotive and can easily jeopardize the success of a PPP project. Another risk the respondent cited was revenue risk where the firm could have a good project but the partners don't agree on the tariffs which can throw the project into disarray.

Respondent 4 said that the firm faces two risks; demand risk and availability of grid. The firm takes on demand risk and therefore if the demand for electricity power doesn't increase or grow as expected then the firm (and by extension the customers) ends up paying for idle power. The second risk is availability of the grid.The firm takes the risk of availing the grid to the Independent Power Producers (IPPs); even plants connected to lines owed by other sector entities. Prolonged outages may expose the firm to pay for deemed generated energy (DGEs). **Respondent 5** cited three risks that the firm faces. Firstly, private investors may demand for more that the government and public sector firm are willing andable to offer, for instance, make demands that may compromise Kenya's sovereignty and security. Thirdly, changes in the private investor financial status, for instance, bankruptcy. **Respondent 6** said the firm deals with two main risks. Political risk where the specific area to benefit from rural electrification is changed by the political class and the fact that land is very emotive so getting way-leaves can be hard as people find it hard to relinquish their land.

It is evident from the responses that public energy firms faced certain risks in the implementation of the PPPs. As such, both public organizations as well as their private partners must conduct feasibility studies before engaging in the PPPs so as to come up with ways of evading these risks or of handling them. These results concur with Hodge and Greve (2013) who established that thereare different risks that affect PPPs in every sector and that before engaging in PPPs both partners should study the prospective outcomes and prepare for different scenarios.

4.13.2 Findings and discussion on challenges faced when implementing PPPs

The study also sought to establish the challenges facing the implementation of projects through PPPs. **Respondent 1** indicated that they faced two main challenges; sourcing for the best and most suitable private investor and getting inadequate funding from the national government exchequer.**Respondent 2** stated their challenges as; the process of procuring and maintaining a PPP is tedious, bureaucraticand takes a lot of time.

Respondent 4 stated that the firm faced the challenge of the time it takes to procure, implement and evaluate a PPP project. The respondent gave the example of the current pilot PPP project. It has taken five years and yet the project is still at preliminary planning stage. Another challenge the firm faces is proper allocation of risks between the partners. **Respondent 5** stated that the existing legal framework has been a challenge as the newly enacted PPP Act (2020) is yet to be operationalized through regulations. They also cited that government as it is is not adequately equipped with the knowledge, technical expertise and skills to sit on negotiating tables or offer oversight on nuclear power projects. **Respondent 6** cited that funds are usually not disbursed in good time hence affecting timely implementation of projects.

Based on the responses given, it is evident that these firms faced significant challenges in the implementation of PPP projects. As such, training should be conducted in order to equip the staff with the relevant skills and capacity to be able to carry out feasibility studies. In addition, the government should ensure that disbursement of funds is done in good time and that the right legal regulations are put in place where necessary. By doing so, the implementation of PPP projects will be smoothened and the projects will cost less money and time. The results are concurrent to the findings of Haponava and Al-jibouri (2012) who found that some of the challenges faced by private and public organizations in implementing PPPs can be solved through training and equipping the relevant staff with the necessary skills.

4.14 Findings and discussion on the impact of adoption of PPPs on Organizational Performance

The research sought to understand how each of these firms defined performance, the key performance indices that the firms used to measure performance and whether there was a marked difference in performance by dint of adopting PPP strategy as opposed to traditional procurement.

The researcher also used the Balance Score Card (BSC) matrix to interrogate the performance of these firms subsequent to adopting PPP strategy.

4.14.1 Findings and discussions on how these public sector firms define performance

The six respondent firms are public sector entities established by Acts of Parliament and other statutory instruments. As such, their objectives and outcomes are outlined in the said statutory documents. **Respondent 1** defined performance as how and to what extent the firm attained its setgoals and targets. **Respondent 2** defined performance as the firm's ability to deliver on its mandate. **Respondent 3** defined performance as ability to avail a reliable and efficient transmission network. **Respondent 4** defined performance as the ability of the firm to procure adequate and affordable power. **Respondent 5** defined performance as the ability to achieve goals that have been set. **Respondent 6** defined performance as attainment of goals.

Despite the different definitions, the common theme is that performance relates to the attainment of pre-determined targets in accordance with the organizations mandate or objectives. The general definition based on the responses is that performance is the achievement of pre-determined organizational targets or objectives as described by (Hooley, Greenley, Cadogan & Fahy, 2005).

4.14.2 Findings and discussion on the key performance indices used by the public sector firms

The research sought to identify the Key Performance Indices (KPIs) used by these public sector firms in the electricity sector and how PPP strategy has helped achieve these KPIs. **Respondent 1** indicated the KPIs for power generation are four in number; number of wells drilled, amount of steam developed, number of direct use projects and amount of power delivered to the national grid.**Respondent 2** stated that the firm's KPIs are; delivery of project in time, within budget, right quantity of electricity produced, right capacity of electricity and amount of electricity connected to the national grid. **Respondent 3** indicated that the firm had four main KPIs with regard to transmission of electricity.

These are; reliability (which refers to how well a line is available, how often it goes out, when it goes out how long does it take to come back up), losses on the network, availability of the line (should not go below 97% availability) and losses on the lines (should not go over 3.5% of the power flow on the network). **Respondent 4** stated that the firm had three main KPIs. These are; Low frequency and low duration of system outages, System Average Interruption Duration Index (SAIDI) and Customer Average Interruption Duration Index (CAIDI). The respondent stated that the PPPs have helped the firm attain adequate generation capacity and hence possibility of load shedding is eliminated. Lack of adequate capacity may force the firm to shed of some load which is expensive for both the customers and the government. **Respondent 5** stated that there are no specific KPIs yet as nuclear power production has not started. **Respondent 6** indicated that the firm has two KPIs with regard to rural electrification; number of kilometers covered and number of transformers installed. Adoption of PPP has led to increased kilometers coverage in the rural areas as well as installation of more transformers.

Based on the responses, these different public sector firms, though in the same sector, have different Key Performance Indicators. However, as shown by Oballa (2014), the common indicators include timely delivery and completion of the project, reliability of the service, lower costs as well as the scale of the project in terms of size.

4.14.3 Findings on whether there was a marked difference in performance by dint of adopting PPP strategy

The study also sought to establish whether or not there is a marked difference between using PPP and traditional procurement. **Respondents 1, 2** and **5** stated that there was no marked difference between using PPPs and traditional procurement. This is because PPP provides for procurement of unique projects that have unique financial needs and design and that both modes of procurement target different projects.

Respondents 3, 4 and **6** were of the opinion that there was a marked improvement in performance of firms that adopted PPP strategy.

Based on the responses, public energy firms should therefore adopt PPP in order to enhance theirperformance levels. However, these changes were more apparent in some organizations than others and as such; public entities must first conduct feasibility studies in order to understand if it will improve their performances. Moreover, PPPs may work for some projects and not for others. Theresults concur with the findings of Pedo *et al* (2017) who established that the adoption of Private Public Partnerships leads to better use of public resources and efficiency in the development and running of public projects.

4.14.4 Findings and discussion on the use of Balance Score Card to measure performance offirms that adopted PPP strategy

Finally, the research sought to apply the Balance Score Card (BSC) matrix to measure performanceof these public sector firms in the electricity sector. The BSC is a strategy performance tool that helps management monitor execution of strategy and improves performance. BSC has four aspects; learning and growth, internal business processes, relationship with customers and financialefficiency.

Under the aspect of learning and growth, all respondents stated that adoption of PPP strategy allowed for knowledge transfer from the private sector to the public sector as well as giving staff working in the public sector firms with an opportunity at continuous learning. With regards to theaspect of internal business processes, respondents stated that there was increased efficiency in internal processes due to benchmarking with private sector firms, improved contract management, improved knowledge of risk identification, allocation and management. On the aspect of relationship with customers, respondents stated that PPP strategy has led to availability of affordable electricity, reduced downtime, reliable services to the customers, early access to publicgoods and services as well as timely implementation of power projects.

On the aspect of financial management, PPP strategy has allowed these firms to free up some financial resources that have subsequently been applied to other projects therefore increasing the rate of return to both the private investor and the government.

Based on the responses by the respondents, the results concur with the findings of Pedo *et al* (2017) who established that the adoption of Private Public Partnerships leads to better use of public resources and efficiency in the development and running of public projects.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section presents the summary, conclusion and recommendations of the study. The findings discussed in this chapter and the outcomes were drawn from the results obtained. Finally, the chapter ends with suggestions for further studies and research.

5.2 Summary

The objective of the study was to identify the impact of the PPP strategy on performance of public firms in Kenya's electricity energy sector. The study adopted the qualitative research methodology. The targeted population was six (6) respondents who were representatives of the electricity energy sector firms in Kenya.

Based on the results, the study established that Public Private Partnership strategies were adopted mainly due to the high cost of development projects. The public energy firms engaged with private partners in order to reduce their development and operational costs associated with energy projects. The findings show that most of the partners working with Kenyan public firms in PPPs are other Government Institutions and ministries, private investors as well as foreign governments especially with regards to development projects. International organizations such as the World Bank may also be involved in PPPs. This implies that most of the partners are institutions or organizations that share similar development objectives thereby making it easier for them to work together as shown in of (De Mastle, Encinas, Farquharson, & Yescombe, 2011).

The study also established the cancellation or failure of the PPPs have significant consequences ranging from loss of resources such as time and money but can also result in security issues especially in nuclear projects. As such, it is important that public firms engaging in capital sensitive PPPs set up measures that eliminate the risk of failure.

In addition, some mitigating procedures need to be established in order to save the project in the event that things do not go as planned of (Hodge & Greve, 2013). Based on the results, the study revealed that most of the public energy firms had established contingencies in case the PPPs did not go according to plan indicating that they were proactive and acknowledged the possibility of things going wrong. By planning for this, these firms are able to prepare for all scenarios and can therefore prevent the effects of failure of these projects if and when they arise. In addition, the researcher established that all the projects earmarked for delivery through PPPs are part of the government's long term agenda. This highlights the importance of PPPs in helping the government achieve their mandate of service delivery to the public (Musyoka,2012)

The Ministry of Finance and Planning plays a key role in the success of Public Private Partnerships by all public firms in the energy sector. This implies that it is necessary for PPP projects to be included in plans by the National Treasury in terms of funding and support for them to be successful and to improve the electricity and energy sectors in general. Moreover, it is clear from the findings of the study that the public firms in the energy sector benefit from the involvement of the Ministry of Energy. As the ministry mandated with the regulation and management of energy development activities, this implies that the Ministry of Energy seeks to achieve its objectives as envisioned in Vision 2030 by adopting Public Private Partnerships with different bodies and organizations (Sabry, 2015).

The results showed that the public firms in the energy sector largely have the political goodwill to carry out PPP projects. Political goodwill makes it easier for these firms to deliver their objectives and makes the process much easier for both the public firms and the private partners. Political goodwill enhances the relationship between private firms and the public sector leading to an improvement in the capacity of the public sector and consequently improving the government's capacity to deliver its mandate. The study also found that by adopting long term goals and objectives such as vision 2030 in the energy sector, the public energy firms are able to ensure that they maintain goodwill form any regime that comes into power (Baiya, 2020).

This implies that the energy sector is a key part of the government's development agenda in the long term and as such, the objectives of these firms are in line with those of the government in the energy sector. The study also found that most of the firms receive funding from the national treasury and have forwarded their long term and annual budgets to the national treasury through the Ministry of Energy. For firms such as KPLC where they deal with customers directly, they raise additional funding from other sources such as the customers. This implies that these firms have sufficient support from government and have adequate funding in order to achieve their mandate (Kippra, 2018).

The study shows that most of the firms had been involved in PPPs in the past. In addition, those firms that had not yet undertaken any PPP projects were considering them or had such projects scheduled for the near future. This indicates that Public Private Partnerships have become the norm especially in the energy sector and as such there is need for more research to be conducted on PPPs and better guidelines and policies on PPPs to be formulated in order to enhance the performance levels and success rates of PPP projects in the energy sector (Baiya, 2020).

With regards to the awareness of the public on matters PPP, the general public are either completely unaware or misinformed on the roles of PPPs and how they affect service and goods delivery of public firms. This implies that there is a need for these firms to educate and enlighten the public on the benefits of public firms engaging in PPP projects. This will reduce the politicization of projects as well as enhance public support for PPP projects and this might result in enhanced performance in terms of service delivery. In addition, the findings of the study revealed that there were mixed reactions with some agencies feeling like the public expectations were unreasonable while others felt that they were reasonable. As such, it is necessary for public firms to align their objectives with the needs of the public. This indicated that these firms are actively engaged in civic education in order to encourage public participation and to show how PPP projects can be used to enhance the provision of public services (Gikonyo, 2020).

The respondents show that public energy firms have a high number of willing investors since there are a good number of development opportunities that private partners can invest in along with public firms through PPPs. As such, governments and public firms should encourage more investors to engage with them in PPPs. The average rate of return for investments in the public energy firms ranged between 18-25%. This is a high return rate in comparison to other avenues such as government bonds whose return rates are below 12%. This implies that investment in the energy sector is profitable and as such, more efforts should be made to encourage more investors to partner with public firms particularly in the energy sector. Additionally, the results indicate that most of the energy firms find the existing frameworks to be adequate. However, a few need to have their policies changed. As such, this legal and policy frameworks should be approached on an individual basis since different organizations may have different frameworks and therefore require different legal and institutional policies (Hodge & Greve, 2013).

The study found that transaction costs varied with the highest being 15% while the lowest was between 3 and 5% of the entire project cost. While most of the respondents indicated that the transactions costs were between 3 and 5%, the scale of such projects means that these figures are also very high in context. The public energy firms in partnership with the private companies should come up with ways of reducing the transaction costs. Moreover, given the long term costs of such PPPs, the cumulative cost are high as shown by (Aitken, 2014).

The study found that Public Private Partnerships have been largely beneficial to the general public in terms of better and cheaper access to power. This implies that PPPs should be adopted in more projects so as to provide power to more people, in different areas and at lower costs. Moreover, from the responses, it is clear that investors' benefit from PPPs as much as the public firms and the general public at large. As such, government institutions and organizations should seek private partners to work together on development projects in order to ensure more projects are commissioned and public service delivery is actualized for more people (Catsi, 2018).

Given there are different metrics or definitions of success of the PPPs for different organizations then the success or failure of the PPP projects should be determined on an objective scale. It is evident from the responses that public energy firms faced certain challenges in the implementation of the PPPs. These challenges include non-performing partners, tedious, bureaucratic and time consuming procurement practices, lack of a standard legal framework, lack of technical skills by some of the staff as well as challenges in sourcing for the best investors (Haponava & Al-jibouri,2012)

Public energy firms in Kenya faced significant challenges in the implementation of PPP projects. As such, training should be conducted in order to equip the staff with the relevant skills and capacity to be able to carry out feasibility studies. In addition, the government should ensure that disbursement of funds is done in good time and that the right legal regulations are put in place where necessary. By doing so, the implementation of PPP projects will be smoothened and the projects will cost less money and time (Hodge & Greve, 2013).

Despite the different definitions, the common theme is that performance relates to the attainment of pre-determined targets in accordance with the organizations mandate or objectives. Finally, Majority of the respondents noted that there is a marked difference between the use of Private Public Partnerships and the traditional procurement. As a result, public energy firms should therefore adopt PPP in order to enhance their performance levels. However, these changes were more apparent in some organizations than others and as such, public entities must first conduct feasibility studies in order to understand if it will improve their performances. Moreover, PPPs may work for some organizations and not for others (Pedo *et al.*, 2017)

5.3 Conclusion

The study concluded that PPPs were adopted mainly as a way of mitigating high cost of energy development projects. Given the high stakes involved in development projects, the study also concluded that the failure of PPP projects often has significant consequences in terms of time andmoney.

The study also established the cancellation or failure of the PPPs have significant consequences ranging from loss of resources such as time and money but can also result in securityissues especially in nuclear projects. To mitigate this, most of the public energy firms had established contingencies in case the PPPs did not go according to plan indicating that they were proactive and acknowledged the possibility of things going wrong. By planning for this, these firms are able to prepare for all scenarios and can therefore prevent the effects of failure of these projects if and when they arise. In addition, the study concluded that all the projects earmarked for delivery through PPPs are part of the government's long term agenda. This highlights the importance of PPPs in helping the government achieve their mandate of service delivery to the public.

The study also concluded that the Ministry of Finance and Planning as well as the Ministry of Energy are crucial in the success of Public Private Partnerships. This can be through government funding and other forms of support in order to improve access to energy across the country. In addition, the study also concludes that the public firms in the energy sector benefit from the involvement of the Ministry of Energy. The study also concluded that political goodwill makes it easier for public firms in the energy sector to carry out PPP projects these firms to deliver their objectives and makes the process much easier for both the public firms and the private partners.

Political goodwill enhances the relationship between private firms and the public sector leading to an improvement in the capacity of the public sector and consequently improving the government's capacity to deliver its mandate. Moreover, the study concluded that adopting long term goals andobjectives such as vision 2030 in the energy sector enables the public energy firms are able to ensure that they maintain goodwill form any regime that comes into power. In addition, the study also concluded that public energy firms have a high number of willing investors since there are a good number of development opportunities that private partners can invest in along with public firms through PPPs.

The study found that transaction costs varied with the highest being 15% while the lowest was between 3 and 5% of the entire project cost. While most of the respondents indicated that the transactions costs were between 3 and 5%, the scale of such projects means that these figures are also very high in context. The public energy firms in partnership with the private companies should come up with ways of reducing the transaction costs. Moreover, given the long term costs of such PPPs, the cumulative cost are high. The study also concluded that PPP projects in the energy sectorface a number of challenges that prevent them from achieving the desired performance. Finally, the study concluded that there is a marked difference between adopting the traditional procurement method and the adoption of Private Public Partnerships in terms of the performance of the public energy firms in Kenya.

5.4 Recommendations

Based on the findings, the study recommends that public firms engaging in capital sensitive PPPsshould set up measures identify, allocate and mitigate risks so as to eliminate the risk of failure. In addition, in case the project does not go as planned, organizations should set up contingencies to mitigate the risk. The study also recommends that more research to be conducted on PPPs and better guidelines and policies on PPPs to be formulated in order to enhance the performance levels and success rates of PPP projects in the energy sector and beyond.

This implies that there is a need for these firms to educate and enlighten the public on the benefits of public firms engaging in PPP projects. This will reduce the politicization of projects as well as enhance public support for PPP projects and this might result in enhanced performance in terms of service delivery. In addition, civic education on PPP will enable the public to hold such public organizations to account. The study also recommends that public firms should align their organizational objectives to match the needs of the public they are mandated to serve.

Given the success of PPPs in some public organizations, the study recommends that PPPs should be adopted in other government projects in different sectors in order to make public service available to more people and at lower costs. As such, government institutions and organizations should seek private partners to work together on development projects in order to ensure more projects are commissioned and public service delivery is actualized for more people.

The study further recommended that government institutions should provide training to the staff responsible for PPP projects so as to equip them with the necessary skills and capacity to carry out feasibility studies. Moreover, the government should ensure that funds are disbursed in good times in order for PPP projects to run smoothly and be completed in good time.

5.5 Areas for Further Research

The study suggests the need for other studies to be conducted to examine the influence of public private partnerships in other countries outside Kenya in order to ascertain how they may affect performance in different sectors. These countries can be equivalent in terms of economic growth, population dynamics and political environment.

Moreover, the study calls for further research to be conducted ona different sector such as education or healthcare that is not as capital intensive as the energy infrastructure sector.

Finally, the findings of research and studies in the suggested areas can be linked with the results of the current study in order to make a comparison and identify policy and legislative contributions to the PPP sphere.

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APPENDICES

Appendix I: Introductory Letter

The Director General,Name of organization,

P.O. Box (Location),

Dear Sir/Madam,

RE: INTRODUCTORY LETTER

I am a student pursing Masters of Business Administration (Strategic Management) at University of Nairobi. I am carrying out a research entitled: **Public private partnership strategy and performance of firms in the electricity energy sector in Kenya.** Your honest view and information you provide on this study will be appreciated; will be treated with a lot of confidentiality and your responses and your name will not be divulged to any other person. The information collected will be used for the purpose of this study and not for any other purpose. The interview guide is designed to help carry out a survey of the identified Electricity Sector Parastatals in Kenya. Thank you very much for your valuable time and co-operation.

Yours sincerely,

Muriuki Wambui Annette

Appendix II: Interview Guide

INTRODUCTION AND INFORMED CONSENT

My name is Annette Wambui Muriuki. I am a student at the University of Nairobi (UoN) pursuing Masters in Business Administration - Strategic Management (MBA). I am currently undertaking aresearch project on the topic **Public Private Partnership Strategy and Performance of Firms in the Electricity Sector in Kenya.** Your organization has been identified as a key respondent inthis study due to the critical role it plays in the electricity sector in Kenya.

Subsequently, I would like to seek your consent to undertake an interview aimed at collecting thenecessary information required to finalize on this research project. The interview will take a maximum of one and a half (1.5) hours. Your responses will be handled confidentially and ethically. The interview shall be recorded but only for purposes of collection and interpretation ofdata and no other purpose.

I…………………………………………………..of……………………………… …………

….

On this date… ....Offer my informed consent to undertake this interview

INTERVIEW QUESTIONS

1. **Introductory questions**

a) Name of respondent
b) Position they hold in the organization
c) How long have they been in that organization? And that position?
d) How do you interact with PPPs?
e) Does the organization's strategic plan provide for PPPs? How many PPP projects has yourorganization handled/ handling?

2. **Why did your organization opt for PPP as the mode of project delivery?**

a) Pursuing PPPs is no mean fete. What persuaded your organization to opt to deliverdevelopment projects through PPP?
b) How do you identify key partners?
c) Who are your key partners?
d) What would it mean to your organization if the proposed partnership doesn't go asplanned?

e) Are there mitigation factors in place?

3. **<u>Are the projects identified and ear-marked for delivery through PPP included in thenational government long term development plan?</u>**

a) What is the role of the National Treasury and planning in the success of the PPP projects?
b) What is the role of the Ministry of Energy in the success, or otherwise, of the PPP project?

4. **<u>Is there political goodwill for the roll out of the project(s)?</u>**

a) Government changes every five (5) years. How do you ensure political support for theseprojects?
b) How do you ensure these projects are captured in annual budgets and that they areadequately funded?

5. **<u>Has your organization successfully procured a PPP project before?</u>** (This helps solidifythe experience the Agency has in handling PPPs which subsequently gives private sector partners the confidence to invest).

a) If yes, how many PPP projects has your organization handled?
b) What is/was their worth?
c) What is the current status of the project(s)?
d) On average, how long did it take to complete a PPP project?

6. **<u>Your Firm is engaged in producing a public good/ service. Do you think the publicunderstands the concept of PPPs?</u>**

a) Do you think the public understands the concept of PPPs and the role they play in producingthe public goods and services?(considering some of the cost is passed on to the consumer)
b) Are the public's expectations reasonable?
c) Does your organization conduct civic education or public participation before, duringor/and after engaging in PPP or identifying projects to be undertaken by PPP?

7. **<u>Are these PPPs reliable?</u>**

a) Are investors willing to finance the projects?
b) What normally is the average rate of return?

8. **<u>Are the PPPs undertaken by your organization supported by institutional, legal andpolicy framework?</u>**

a) Are the existing legal, institutional and policy frameworks adequate or there is need foramendment?

9. **<u>Is the size of the project a key determinant in deciding whether to pursue PPP strategyor traditional procurement?</u>**

a) Generally, what is the transaction cost of the PPP project vis a vis the whole project cost?

10. <u>Who are the beneficiaries of the PPPs?</u>

a) What benefits accrue to (quantify the benefits):
   i. your organization
   ii. the public
   iii. the investor?

b) What does success look like? How does a successful PPP project look like to yourorganization?

11. <u>Feasibility, likelihood of success, and risk management</u>

a) What are the likely risks that your organization may/ has come across when implementingPPPs?

b) What are the challenges that face implementing of projects through PPPs?

12. <u>How has the adoption of PPPs impacted on the performance of your organization?</u>

a) How do you define performance?

b) What are your organization's key performance indices (KPIs)? How has adoption of PPPstrategy impacted on the KPIs?

c) Is there a marked difference between using PPP and traditional procurement? If yes, whatkind of difference?

Appendix III: PUBLIC SECTOR FIRMS IN THE ELECTRICITY SECTOR IN KENYA

1.	Geothermal Development Company (GDC),
2.	Kenya Electricity Generating Company (KENGEN),
3.	Kenya Electricity Transmission Company (KETRACO),
4.	Kenya Power Lighting and Company (KPLC),
5.	Nuclear Power and Energy Agency (NuPEA)
6.	Rural Electrification and Renewable Energy Corporation (REREC)

List of public sector firms in the energy sector
Source: Executive Order 2/2013 of May 2013