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# Analysis of critical success factors for Health Public-Private Partnerships: a case of the Managed Equipment Services (MES) in Narok County.

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Miseda, John Opudo  
*Strathmore Business School*  
*Strathmore University*

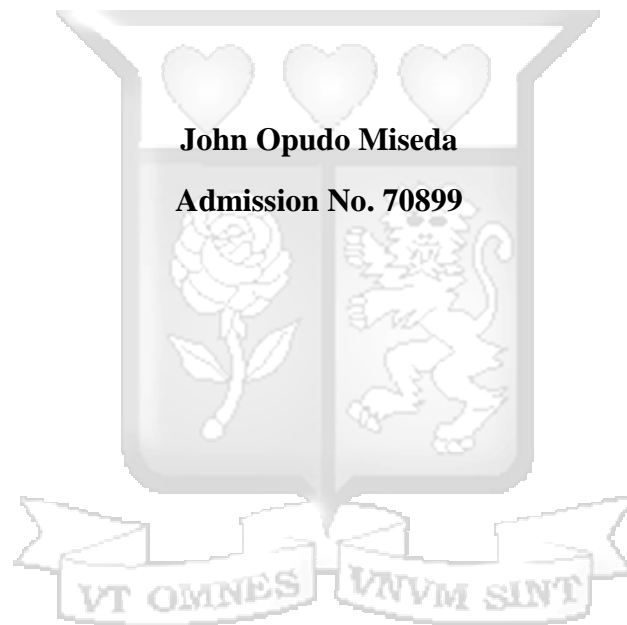
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**Analysis of Critical Success Factors for Health Public-Private Partnerships: A Case of  
the Managed Equipment Services (MES) in Narok County.**



**A Dissertation Submitted in Partial Fulfilment of the requirement for Degree of Master  
of Science in Development Finance at Strathmore Business School.**

**June 2020**

## DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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Name of Candidate ..... *John Miseda* .....  
Signature .....  
Date..... 16/11/2020.....

### Approval

The dissertation of John Opudo Miseda was reviewed and approved for examination by the following:

Name of Supervisor: Dr. Elizabeth Muthuma  
School/Institute/Faculty: Strathmore University Business School.

Dr. George Njenga  
Executive Dean  
Strathmore University Business School.

Dr. Bernard Shibwabo  
Director, Office of Graduate Studies

## ABSTRACT

Health Public Private Partnerships (PPPs) have increasingly gained popularity as governments worldwide are seeking interventions to manage the ever-increasing cost of healthcare and foster development goals while harnessing private sector efficiencies. While most health PPPs have recorded a high success rate in developed nations, there is little evidence of success in relation to Low- and Middle-Income countries which are marred by complex challenges inherent in healthcare industry thereby imposing challenges to achieve their intended goals. This research focused on the Critical success factors (CSFs) for health PPP in this case Managed Equipment Services (MES), a Partnership between the government of Kenya and private companies to provide specialized medical equipment to County governments hospitals. Past studies reviewed in the literature focused on different health PPP models across different jurisdictions and indicated that Political goodwill, Contract Agreement, Stakeholder Involvement, Expertise, Human Resource, and Innovation were CSFs. However, these factors are unique and are not easily replicated into other jurisdiction, health PPP models, or sectors and it is against this backdrop that the current research seeks to analyze which factors are critical for MES in Narok County. The researcher conducted Key Informants Interviews of PPP experts and administered questionnaire to Sub-County and County Health Management Teams in Narok county. The Spearman rank correlation was used to measure the correlation of CSFs under review while qualitative content analysis was inductively done to come up with overarching themes on the CSFs. Among the factors tested, Political Goodwill, Contract Agreement, Stakeholder Involvement, and Expertise were found to be critical for the success of MES and exhibited a positive correlation with each other. The key recommendations of the study were employing these CSFs and strengthening PPP framework to guide on procedures and rules that govern the implementation of health PPP at the County level.

**Keywords:** *Critical success factors (CSFs), Public Private Partnerships (PPPs), Health.*

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## ABBREVIATIONS AND ACRONYMS

BOOT	Build Own Operate Transfer
BOT	Build Operate Transfer
CIDP	County Integrated Development Plan
CSO	Civil Society Organization
CSFs	Critical Success Factors
DBFO	Design Built Finance Operate
FBO HF	Faith Based Organization Health Facility
FM	Facility Management
FY	Financial Year
GAVI	Global Alliance for Vaccines and Immunization
KEMSA	Kenya Medical Supplies Agency
KNH	Kenyatta National Hospital
LMICs	Least and Middle-Income Countries
MDGs	Millennium Development Goals
MES	Managed Equipment Service
MoH	Ministry of Health
MTRH	Moi Teaching and Referral Hospital
NGDOs	Non-Governmental Development Organizations
NHIF	National Health Insurance Fund
PFI	Private Finance Initiative
PFP HF	Private For-Profit Health Facility
PPC	Public Private Collaboration.
PPPs	Public Private Partnerships

PRRR	Pink Ribbon Red Ribbon
SAGA	Semi-Autonomous Government Agencies
SDGs	Sustainable Development Goals
SUPKEM	Supreme Council of Kenya Muslims
UHC	Universal Healthcare Coverage



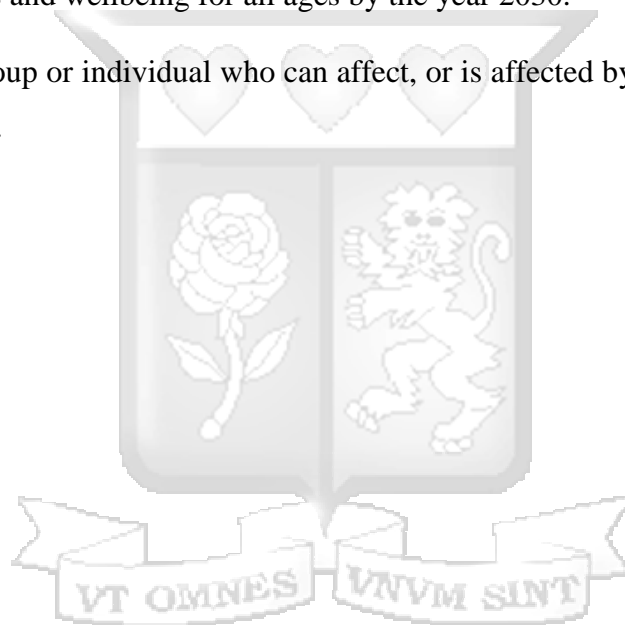
## DEFINITION OF TERMS

**Public-Private Partnerships-** This is a form of contract between a government and a private party, whereby the private party undertakes a long-term provision of publicly beneficial services/assets.

**SDGs-** They are also called Global Goals, that were adopted by all United Nations Member States in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by year 2030.

**SDG-3-** This is one of the Global Goals adopted by all United Nations Member States in 2015, to ensure healthy lives and wellbeing for all ages by the year 2030.

**Stakeholder-** Any group or individual who can affect, or is affected by, the achievement of a corporation's purpose.



## DEDICATION

I dedicate this work to my lovely wife Agnes Andeso, my son Jude Miseda and my lovely daughters Angeliz Origi, and Alena Amary for the moral support and motivation to pursue my studies.



## ACKNOWLEDGEMENT

I thank the almighty God for His generous graces that has propelled me throughout my study in the business school and the inspiration to do this work for His glory.

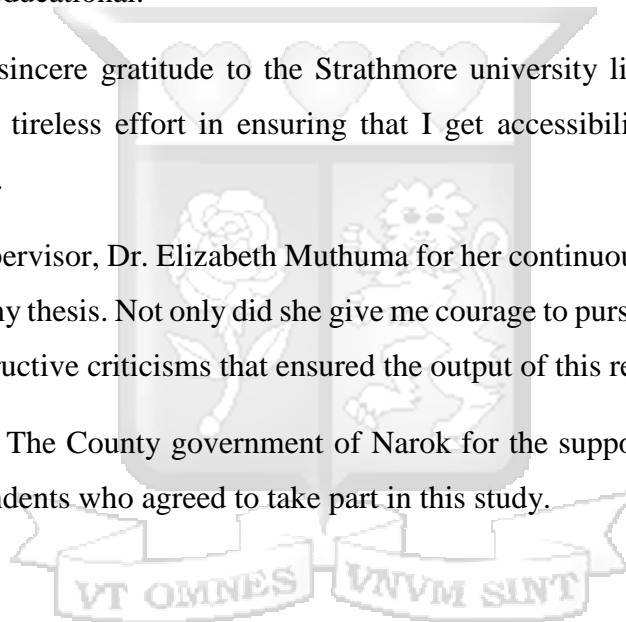
I thank my wife Agnes Andeso Ojango for the immense prayers and moral support all through my studies. The countless number of times I have been away from home for school and yet she took care of the children by herself without any complaints.

I thank my mum Mary Joyce Origi, for her prayers, encouragement, and support all through my studies and my late father, Michael Aliwa Miseda for being a role model and strong proponent of matters educational.

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## **CHAPTER ONE: INTRODUCTION**

### **1.1. Introduction.**

This section contains the introduction of the study and it starts with an overview of Public-Private Partnerships (PPP), to gain an understanding of what they entail and immediately thereon, delve to Managed Equipment Services a type of Health PPP. Critical Success Factors of PPPs and Sustainable Development Goals are examined to understand their context and interplay respectively, within the realm of Public-Private Partnerships. Statement of the problem, research objectives and research questions, scope and significance of the study are presented thereafter.

### **1.2. Overview of Public-Private Partnerships.**

In Kenya, The Public Private Partnership Act 2013 defines Public Private Partnerships (PPPs) as arrangements between a contracting authority and a private party, under which a private party undertakes to perform a public function, receives a benefit for carrying out the public function through payment from a public fund or the collection of charges or fees, and is generally responsible for risks emanating from the performance of the function. Contracting authorities are a government ministry, agency, state corporation or County government which aims to have its function done by a private party (Public Private Partnership Act, 2013). Another definition of Public-Private partnership is a procurement approach whereby projects are executed with a long-term contractual relationship between the public and private entities to either provide an asset and/or service (Tang et al., 2013). Health Public-Private Partnerships on the other hand, is a collaboration between the public and private sector to provide healthcare infrastructure or service (Wong, Yeoh, Chau, Yam, Cheung, et al., 2015). They are categorized into Health services, Health Infrastructure, and Integrated model as illustrated in figure 1.1.

Figure 1.1: Public Private Partnerships in health sector.

*PPPs in the health sector*

PPP Model	Common Term	Definition/ Explanation	Examples
<b>Health services</b>	Operating contract, performance-based contract (concession, lease)	Private party provides publicly funded health services in a publicly owned facility.	General hospital services, specialized services (i.e., dialysis), diagnostics and imaging, package of essential services
<b>Health infrastructure</b>	Design, build, finance, operate, maintain (DBFOM); build, own, operate, transfer (BOOT); UK PFI model	A public agency contracts a private party to provide a facility, with health services within the facility usually provided by the public sector.	General hospitals, primary and tertiary care clinics
<b>Integrated model (services + infrastructure)</b>	Twin accommodation, clinical services joint venture, franchising, PFI+	A private party builds or leases a facility and provides free or subsidized health services to a defined population.	General hospital and services, laboratories and lab services, primary care centers and services

Source: (International Finance Corporation, 2019).

PPPs in healthcare have gained popularity and thus prompting the governments worldwide to seek interventions to the concurrent escalating healthcare cost and decreasing government budgetary allocation (Blanken & Dewulf, 2010). For instance, changes in global banking regulation and concerns about quality of assets held by banks has posed a challenge to long term lending. The insufficient liquidity and concentration of risks has thus escalated the interest rates on project finance thereby reducing the ability of PPPs to generate economic value in healthcare sector and consequently lesser political goodwill (Hellowell, 2012).

Government expenditure on healthcare is rapidly rising and may become unmanageable unless fresh sources of finance are established (International Finance Corporation, 2011). For instance, a report by Economic Survey, (2020) indicates that County Government expenditure on health is expected to rise by 24.6 percent to 114.7 billion Kenya shillings in the FY 2019/20. A similar report had indicated that the expenditure on health was expected to grow by 15.5 percent to 63.1 billion Kenya Shillings in the FY 2015/16 (Economic Survey,2016). On the other hand, the share from the

collective discretionary public budget allocated to health by the national and County governments during FY 2016/17 reduced to 7.6 percent from 7.7 percent the previous year, beneath the pre-devolution level of 7.8 percent and below the Abuja declaration target of 15 percent (Republic of Kenya, 2016). This puts the government in a limbo since the budgetary allocation is dwindling whereas there is need of spending more on healthcare. A study by Kenya Health System Assessment, (2010) indicates that low expenditure by government on health has compromised the quality of care in the public sector evidenced by poorly maintained infrastructure amongst others.

A report by Kenya Health Policy Forum, (2014) established that inadequate equipment compounded by poor maintenance and rapidly changing technologies to be among the main reasons that hinder effective delivery of essential health services and better health outcomes and advocated the use of PPPs as the potential mechanism to address this challenge. Moreover, a report by Kenya HealthCare Federation, (2016) on the status of health infrastructure indicates that there is lack of comprehensive, coordinated investment with gaps in some facilities and limited maintenance in relation to medical equipment. Most of Narok County health facilities still lack basic infrastructure including specialized equipment which as a result, directly or indirectly affect the quality and efficiency of health service delivery (CIDP, 2018).

### **1.3. Managed Equipment Service (MES).**

Managed Equipment Services (MES) was a PPP between the government of Kenya and private companies to provide medical equipment to 98 public hospitals distributed across the 47 counties in Kenya. This arrangement allowed the government to pay for the equipment in time-instalments, based on key performance indicators. The private sector partners were to manage procurement, installation, maintenance, and replacement of the equipment for the period of the contract. The MES was to cover a long-standing contract, initially for a seven-year duration with an option to renew for a further three years. The National government was to appoint ministry representatives to the MES oversight team, ensure punctual remuneration to contractors, receive, and authenticate reports from counties, and enable counties to manage contracts and implement projects. The County governments were to appoint County representatives to the MES oversight team, ensure consistency in provision of services, make sure that there are adequate stocks of goods, consumables, and reagents to enable performance standards to be met, ensure well trained staff are available to enable optimum equipment performance, preparation and punctual submission of reports to the ministry to facilitate punctual remuneration to contractor. The joint tasks were to monitor project performance, follow

up on recommendations of liaison committees and investment committees as required and documentation of lessons learnt. The key areas that MES was to address by the urgent need to equip County hospitals was: “dialysis, emergency, maternal and child health, basic and advanced surgery, critical care and imaging services”(Government of Kenya, 2014).

Narok referral hospital and Trans-Mara West sub-County referral hospital in Kilgoris were the beneficiaries of the Managed Equipment Services (MES) in Narok County. The medical equipment ranged from portable X-ray machines, mammogram, CT scan, Digital x-ray machines, 3D dental X-ray, Ultrasound and C-arm for the radiology unit. The renal unit received dialysis machine, water treatment plant, dialysis beds and chairs, sanction machines, oxygen concentrators, patient monitors and defibrillators. The Intensive Care Unit (ICU) got patient monitors and ventilators, ECG machines, instrument trolleys, newborn resuscitators, infant ventilators, oxygen plants, blood fridge, infusion pumps and ICU beds and mattresses. The theatre got an assortment of surgical instruments, aesthetic machines, operating tables with LED surgical light, patients monitors, autoclave for central sterilization, patient stretchers, fittings in the theatre, electrosurgical unit, and infant warmers (Narok County Health Records, 2020).

#### **1.4. Sustainable Development Goals**

The 2030 Agenda for Sustainable Development Goals (SDGs) was adopted by world leaders in a historic United Nations Summit in September 2015 to complete the work began by its predecessor Millennium Development Goals (MDG) in its quest of targeting to end all forms of poverty (United Nations, 2015) . These SDGs are 17 (Seventeen) in number and were adopted to provide a global framework for development efforts including global health research. PPPs are continually being fostered to meeting both national and global developmental goals. To accelerate the progress towards the SDGs requires a multi-stakeholder partnership platforms (UNDESA, 2020). A study by Addo-Atuah et al., (2020) reaffirms this by noting that SDGs can only be achieved through strong global partnerships and collaborations. Collaborations play an integral role of mobilizing multi-stakeholders around development agenda and tapping into synergies among the partners like having broader public and private sector networks, having a greater depth and breadth of expertise among partners and helping government to be in a better position to drive policy (SDG Philanthropy Platform, 2016).

Being among the beneficiaries of MES, Narok County is striving to meet national and global commitments including the Sustainable Development Goals, reorientation towards Universal Health Coverage and commitment to County, national and global partnerships frameworks. For instance, the County government has realized the significant benefits of bridging the infrastructure gap as soon as practicable, key among others being equipping of health facilities with equipment in order to reduce the infant and maternal mortality rates, thereby addressing SDG- 3 (CIDP, 2018). The Sustainable Development Goals (SDG)-3 which ensures good health and wellbeing of all ages-provides the impetus for Kenya to make strides towards Universal Healthcare Coverage (UHC) which Thadani, (2014) notes as the basic objective of PPP in health sector. Studies like the one done by Kamau & MacNaughton, (2019) have shown that SDG-3 is aligned in numerous ways with Kenya's development and health Policies. Achievement of SDG-3 requires immense investment of resources in the health sector and collective partnerships between the public sector and the private sector since these partnerships help in harmonizing the strong points of varied organizations in respect to knowledge, resources and networks (SDG Philanthropy Platform, 2016).

### **1.5. Critical Success Factors**

Critical Success elements are critically important since they assist organizations identify key factors that they should focus on in order to be successful in a project that they undertake (Matthews & Rowlinson, 1999). Identification of enabling factors that will result to sustainable and successful PPP is key in providing knowledge and insights for governments considering PPPs as a means of meeting health systems goals (Wong, Yeoh, Chau, Yam, Cheung, et al., 2015). For example, an awareness of Critical Success Factors within a dental clinic provided the senior management and political decision makers with an evidence-based overview of pitfalls, and complexities that can throw a health information system implementation off track (Sidek & Martins, 2017).

Despite the unique characteristics of individual PPP project, prior studies have examined the Critical Success Factors of PPP projects in general. The studies in the 1990's focused on CSFs for winning PPPs projects. For instance, Tiong et al.(1992) identified strong Private consortium, technology innovation and right project identification as the CSFs in winning BOT contracts. Later on Li et al. (2005) noted that Political Commitment, strong Private consortium, and appropriate risk allocation as the Critical Success Factors. (Zhang, 2005) noted political support, community support and appropriate risk allocation and stable macroeconomic indicators as the Critical Success Factors. Other researchers such as Askar & Gab-Allah, (2002) noted that stakeholder involvement, selecting

the right project, and competitive financial proposal as the CSFs. (Jacobson & Ok Choi, 2008) cited clear roles and responsibilities, political support and trust, expertise advice as the Critical Success Factors. Later on, other studies noted that technology innovation, political support, stable macroeconomic conditions and good feasibility studies as critical Success Factors as noted by (Dulaimi et al., 2010). (Liu & Wilkinson, 2013) attributed private sector innovation, stable macroeconomic conditions, and robust tendering amongst others as the CSFs of PPPs. (Abdul-Aziz & Kassim, 2011) noted the compatibility of skill set of both parties, political support and competitive bidding as CSFs for PPPs. Meng et al.(2011) notes the importance of having professional advisors, appropriate risk allocation and transparent procurement process as the Critical Success Factors for PPPs. It is worth noting that, by virtue of these CSFs being generic in nature, they can be applicable to health PPP which is a subset of a PPP.

### **1.6. Statement of the problem**

In examining the relevance of PPPs to strengthening health systems, Nanda, Bouchet, Bratt, & Searle,(2010) observed that both private and public sectors have strengths and weakness and neither sector can independently address the comprehensive health needs of the population and fulfil the functions of health system. A similar view had been reverberated by Nishtar, (2004) that neither public and private sector can individually address emerging issues in public health policy agenda both locally and internationally. According to Hellowell, (2012) even though PPPs have a strong recognition in western countries and supranational donors, there is no empirical evidence in relation to their performance in LMICs (Least and Middle Income Countries) while it is evident that they are full of implementation challenges despite the fact that poor performance of a PPP project is a costly affair(J. Liu et al., 2014).

Public Private Partnerships (PPPs) are increasingly being fostered to meet key development goals (Jomo et al., 2016). While Kenya has done well in achieving some of the Millennium Development Goals by improving net registration rates in education, fostering gender equality and enhancing the capacity of women, much remains to be done in terms of eliminating extreme poverty and hunger, addressing child mortality, battling HIV and AIDS, malaria and other diseases, and especially enhancing better maternal health (SDG Philanthropy Platform, 2016).

In the quest of Narok County government achieving Sustainable Development Goal-3 which according to CIDP, (2018) is among the SDGs that has highest linkages with Narok County

development agenda, and in the light of challenges facing healthcare sector as highlighted above, analysis of Critical Success factors of health PPPs in this case Managed Equipment Services, would provide an important impetus that will inform the success of future health PPPs. Careful deliberation of the necessities for success of PPPs may progress the prospect of success in the future (Kula & Fryatt, 2014). PPPs, when suitably organized and implemented, are reliable to deal with the high cost and implementation challenges, thereby enhancing efficiency and quality of service delivered. However, leveraging on these partnerships to abate the difficulties that governments encounter in provision of healthcare is a challenge since PPPs require a longer period to set up and bring to fruition. Therefore, an appraisal of the requirements for success and sustainability is essential on a case-by-case basis to evaluate the outlays, significance and the probability of success of PPPs (Maikisch & Nikolic, 2006).

## **1.7. Research Objectives**

### **1.7.1. General Objective.**

- i. To Analyze the Critical Success Factors for Health Public-Private Partnerships.

### **1.7.2. Specific Objectives.**

- i. To analyze Political goodwill, Contractual Agreement, Human Resource, Innovation, Expertise and Stakeholder Involvement, as the Critical Success Factors for Managed Equipment Services in Narok County.
- ii. To ascertain the relationship amongst the Critical Success Factors under review i.e. (Political goodwill, Contractual Agreement, Human Resource, Innovation, Expertise and Stakeholder Involvement) in Narok County.

## **1.8. Research Questions.**

The study attempts to address the questions, as follows:

- i. Which amongst Political goodwill, Contractual Agreement, Human Resource, Innovation, Expertise and Stakeholder Involvement is the Critical Success Factors for Managed Equipment Services in Narok County?
- ii. What is the relationship of Critical Success Factors for health PPPs i.e. Political goodwill, Contractual Agreement, Human Resource, Innovation, Expertise and Stakeholder Involvement in Narok County?

## **1.9. Scope of the study.**

This study specifically focused on Managed Equipment Services (MES) a Public Private Partnership between the government of Kenya and private companies to provide specialized medical equipment to 98 public hospitals distributed across the 47 counties in Kenya. Narok County being among the beneficiaries of MES, the medical equipment is fully operational at Narok referral hospital and in Trans-Mara west sub-County hospital. In total there is one County referral hospital, three sub-County hospitals, six mission hospitals, two nursing homes, thirty six health centers, one hundred and ten dispensaries, and forty seven clinics (CIDP, 2018). Despite having a substantial number of health facilities across the County, access to health services is still low and some of the health facilities have inadequate infrastructure, drugs and trained personnel to attend to some of the medical needs of the patients. (Narok County HIV & Aids Strategic Plan, 2018).

## **1.10. Significance of the study.**

### **1.10.1. Policy**

Problems in contemporary healthcare are complex, a term that Newton, Mason, & Mitroff, (1982) refers to as '*wicked*' and therefore, an effective collaboration between the public sector and private sector is necessary to solve the complex health problems (Kostyak et al., 2017). Efficiency and quality gains in health sector accrue from PPPs. In addition, PPPs can be an instrument of promoting equity by ensuring access to the poor and vulnerable if supplemented by appropriate government support (Le et al., 2020). While Kenya is striving to make strides to Universal Healthcare coverage, the findings of this study shall inform the health policies to be adopted by the County government of Narok and hence expedite the realization of its developmental goals. A report by Ministry of Health, (2014) indicated that the government prioritizes research that is geared towards policy and intervention formulation, identifying gaps and critical factors that affect the vulnerable groups.

The study will assist in providing a predictive tool to assist the implementers in assessing likelihood of successful health PPP while at the same time providing valuable information to investors who are interested in setting up health projects that assume health service PPP model, on the critical factors that constitute their success. The research output will therefore enlighten these key stakeholders on the effective measures to adopt to ensure a successful health service PPP arrangement. The finding of this research shall be disseminated to the Narok County director of

health, who is also an advisor to the legislators on policies related to health, devise how the identified CSFs can be adopted in steering Narok County into achieving its developmental goals.

### **1.10.2. Academia**

The health sector in Narok comprises of Research and Development, Public Health and Sanitation and County departments of medical services (CIDP, 2018). The research findings shall also be shared to research and development whereby future researchers can rely on findings of this study to delve deeper on health PPPs which is a new concept thus contributing to the body of knowledge.



## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1. Introduction**

This section contains the literature review for the study. Literature on Critical Success Factors of PPPs are of two kinds, i.e. those that evaluate the CSFs of PPPs in general and those that focus on the CSF of specific PPP project (Ismail & Ajija, 2013). This study focused on PPPs in health sector with greater emphasis on the studies that examine the CSFs for healthcare PPPs. This is covered in the section under theoretical review and empirical review of extant literature. Thereafter, the research gap and conceptual framework are presented immediately after the literature review.

### **2.2. Theoretical Review of Literature**

Partnership success is categorized into five types namely; achieving results, having a working process, attaining emergent milestones, being recognized by the peers, and acknowledging personal pride of steering the partnership (Hodge & Greve, 2011). For instance, according to Jomo et al.,(2016), Public Private Partnerships (PPPs) are increasingly being fostered to meet key development goals, therefore attaining of these goals can be termed as success. Maikisch & Nikolic, (2006) points out that PPPs can be of great value in health sector when they are viable, organized, executed and monitored in a suitable and timely manner, therefore efficiency in the working processing can also be termed as a success.

#### **2.2.1. Stakeholder Theory**

In as much as theoretical frameworks to study PPP in the health sector are few according to Singh & Prakash, (2010), the study focused on stakeholder theory. Freeman, (1984) defines a stakeholder as any group or individual who can affect, or is affected by, the achievement of a corporation's purpose. A study by Jensen, (2016) on the role of PPPs in Health system strengthening for example showed that the stakeholders from the Ministry of Health, Directorate of Personnel Management, Ministry of Education and Ministry of Finance were instrumental in informing the design of a PPP. De Pinho Campos et al., (2019) also noted that involving key stakeholders at an early stage of partnership and building trustful relationships to be valuable operational insights to the implementation and management of Product development PPPs. (Buse & Tanaka, 2011) in their review of several PPPs in healthcare further noted that insufficient representation of key stakeholders particularly those of the host country, in technical committees of global health partnerships hindered their involvement in decision making process. (Matos & Silvestre, 2013) later

confirms this by showing that organization performance and decisions are highly influenced by the involvement of multiple stakeholders. This corroborates the study by Gottschalk & Solli-sæther, (2005) who noted that neglecting the interest of stakeholders led to less satisfied stakeholders and consequently a financial performance below industry average. The effectiveness and sustainability of PPPs is critically reliant on the commitment of the stakeholders(Wong, Yeoh, Chau, Yam, Cheung, et al., 2015).

According to Public Private Partnership Act, (2013), the two stakeholders directly involved in PPP engagements are the Contracting authorities and private parties. In addition to the stakeholders, are organization or individuals who are directly or indirectly affected by the PPPs. (Joel, 2014) classifies the stakeholders in Kenya's health sector into three broad categories as illustrated in figure 2.1. The first Category being Contracting Authorities which is composed of Ministry of Health, County Governments and Semi-Autonomous Government Agencies or State Corporations like Kenyatta National Hospital (KNH), Moi Teaching and Referral Hospital (MTRH), Kenya Medical Supplies agency (KEMSA), the National Hospital Insurance Fund (NHIF) and the regulatory bodies. The second category is the Private Parties and is primarily composed of Medical equipment and pharmaceutical suppliers, private health facilities, Faith-based health facilities, Medial Insurance Providers and companies that provide goods and services that are not health-specific but are required for health service, supply chain or governance. The last Category is of other core stakeholders who are National Treasury of Kenya i.e. the PPP unit, Partners in health or donors and the end user of health services and products i.e. Patients.

PPPs involve a huge number of stakeholders whose needs are cumbersome to satisfy (Caperchione et al., 2017). The various stakeholders have different key interest and are likely to engage into a PPP if their interests are addressed by it. (Ditlev-Simonsen & Wenstøp, 2013) notes that the agenda of different stakeholders vary hence corporation are influenced in different degrees depending on which stakeholder opinion they accord more weight. The amount of power/influence of the stakeholder determines to what extend they can influence the success of an individual PPP and the overall objective of building a substantive successful PPP. According to Chowdhury et al., (2011) stakeholders agreements have significant effect on the success and structure of a PPP but little attention has been accorded to the views of these stakeholders in regards to how the success of PPPs project should be achieved (Robert Osei - Kyei Albert P.C. Chan, 2017).

Stakeholders can either have a positive and negative effect on the organization legitimacy hence it is imperative that their views be considered and explicit strategies to deal with them developed (De Pinho Campos et al., 2019). A report done by United Nations Department of Economic and Social Affairs, (2015) indicated that multi stakeholder partnerships are key in attaining sustainable development goals for developing countries, in that, they are vital vehicle for mobilizing the sharing of knowledge, expertise, technology and financial resources.

Figure 2.1: Health Public-Private Partnerships stakeholders

		Key interests	Power/Influence
<b>Contracting authorities</b>	<b>MoH</b>	Mobilize financial investment & provide policy and guidance. Retain a certain level of control.	High influence on multiple levels, overlapping sphere of influence with counties.
	<b>Counties</b>	Meet sector strategic objectives, find pragmatic and <u>quick</u> solutions	Influence depends on priorities and personality of Governor. <u>Sub-counties</u> have little influence on contracting, but can be crucial for success.
	<b>SAGA</b>	<b>KNH/MTRH:</b> Continue to provide (highly) specialized services and gain more independence <b>Other SAGA:</b> Retain control, operate efficiently	High influence within their domain. KNH/MTRH may end up having a crucial impact on the perception of health PPP in general.
<b>Private parties</b>	<b>Suppliers</b>	Good business cases	Influence through lobbying – mostly for prioritization of certain health needs. Potential to play a negative role in terms of corruption.
	<b>PPF HF</b>	<b>Small:</b> Increased patient volumes and high quality of care; access to equipment. <b>Large:</b> Better utilization of equipment, protect reputation	Are seen as more influential than equipment suppliers and other private sector stakeholders, but this is limited by their fragmentation.
	<b>FBO HF</b>	Provide good care with optimal use of limited resources	Small facilities are often not taken very seriously by county or national level, but large hospitals are, so they need to operate collaboratively or through their secretariats (CHAK, KCCB, SUPKEM).
<b>Others</b>	<b>Treasury</b>	Build a pipeline of PPPs, and get compliance from MoH and Counties; overcome political obstacles.	Treasury and its institutional PPP bodies are seen as the single most influential entity
	<b>Donors</b>	Build sustainability and address their own shrinking fiscal space.	Seen as having a higher influence than any private sector player, but less than the large government institutions.
	<b>CSO</b>	Basic healthcare needs to be covered before moving to high-level specialist care	Relatively low, but increasing influence.

Source (Joel, 2014)

As the County Government of Narok is keen to make significant strides in Universal Healthcare coverage, by adopting policies that elicit realization of (SGD-3), which in this study can be termed as the goal, the interplay of the various stakeholders in MES thus cannot be overlooked if a

successful outcome is to be realized. According to von Malmberg, (2003) for a PPP for sustainable development to succeed, both parties from private and public spheres should have a common view of sustainable development.

### **2.3. Empirical Review of Extant Literature.**

Empirical review seeks to examine the findings of past studies regarding Critical Success Factors for Health Public-Private partnerships which in this case is the focus of this research study.

#### **2.3.1. Background of Health PPPs.**

Health PPPs were first implemented in developed nations in the 1990's and thereafter spread to middle-and low-income countries. Currently their number is estimated to be more than a thousand (1,000) worldwide, Europe and North America being the mature markets with most operational projects (Le et al., 2020).

A study by Marek et al., (2005) on the trends and opportunities in PPPs to improve health service delivery identified types of PPPs in health sector to be in the form of contracting the provision of health services, leasing of equipment and facilities, concession, divestures and franchising. A study by Thomason & Rodney, (2009) further delved deeper to explain the key types of PPPs in health sector to include leases, management contracts, equipment contracts, Hybrid contracts, service contracts, private financing initiatives and other types not guaranteed by the government like divestures.

A report by World Bank, (2016) on topology of PPPs in health sector further classifies the various forms of the health PPPs into three broad PPP models; that is, those that the private operator delivers publicly funded health services in public health facility example being leases and concession and termed them as health services only model. Those that a public agency contracts a private operator to Design Build Finance Operate (DBFO) a hospital facility and Build Own Operate Transfer (BOOT) and termed them as facility finance model and those which the private operator builds or leases a facility to provide free medical services to specified population example being joint venture and franchising are termed as combined model. This is illustrated in figure 2.2.

Figure 2.2: Health PPP Models

PPP model	Common term	Definition / Explanation
Health services only (selective)	Operating contract, performance-based contract (concession, lease)	A private operator is brought in to operate and deliver publicly funded health services in a publicly owned facility.
Facility finance (accommodation only)	Design, build, finance, operate(DBFO), build, own, operate, transfer (BOOT), UK's PFI	A public agency contracts a private operator to design, build, finance, and operate a hospital facility. Health services within the facility are (mostly) provided by government.
Combined (accommodation and health services)	Twin accommodation/ clinical services joint venture/ Franchising, PFI+	A private operator builds or leases a facility and provides free (or subsidized) healthcare services to a defined population.

Source: (Montagu & Harding, 2012)

(Aerts et al., 2014) notes that concessions provide for clarity of roles, rights and duties of parties involved as well as details of risk allocation thereby providing an important tool to resolve conflicts and foster mutual agreement and trust. However, the overall complexity nature of concession contracts can be detrimental by scaring investors, and these contracts incorporate agreements such as design-build-finance-operate (DBFO) and build-operate-transfer (BOT) which are lengthy (Dewulf, Geert, Blanken, Anneloes & Mirjam, 2013).

On the other hand (Torchia et al., 2015) highlights that PFI have been dominant source of capital investment for tax funded National Health Service which is the single largest market for healthcare PPPs in United Kingdom, however (Roehrich et al., 2014) gives a contrasting view about PFI model in that they have increased the complexity at the interface between project delivery and hospital operational function thus resulting to a project delivery model that yields less innovative outcomes. (Dowdeswell et al., 2009) further affirms this by noting that PFI were originally devised for projects that have simple and predictable demands with minimal operational maintenance. Healthcare on the other hand is characterized by rapid changes, complexity, unpredictable horizons and high cost with never ending need for reinvestment. (Atun & Mckee, 2005) had earlier noted that the major fundamental flaw of this model to be inflexibility to the rapid changes in health care sector which eventually results to high cost due to hefty fines charged as a result of breaching the contract by introducing changes. In as much as this model has its downside, a great deal of its funding is “off-Balance-sheet” meaning that there is no possibility of appearing on government books as new borrowing hence enabling government to remain within targets set for state borrowing (McKee et al., 2006).

Franchising model involves the taking over the management of existing public hospital by a private company (Atun & Mckee 2005; Dalton-jez et al., 2011). However, this model is risky since investment and operational risks lie with the private partner. The advantage of this model is that the private partner can benefit from the favorable regulatory framework and financial incentives put in place by the government (Maikisch & Nikolic, 2006). Another merit of this model as noted by Nanda, (2010) on the role of PPPs in strengthening health systems is that franchising encourages private providers in scaling up their services thereby quality services are offered for example, (Marek et al., 2005) notes that franchising has enabled government, through mobilizing of medical practitioners and tapping into the network of franchisee deliver services to the poor. The cost of running franchise can be high to the franchiser and unlike other forms of PPPs, such as service contracts and management contracts, franchise have limited partnership with the public sector since most partnership, if any, come in the form of donation of free commodities from government or international donors (Marek et al., 2005). However, according Gideon et al., (2017) despite the widespread of donors support on PPPs in Sexual and Reproductive Healthcare provision (SRH), a form of PPP which employed social franchising, little evidence for its effectiveness was felt.

Under Managed Equipment Services arrangement public hospitals can access modern health equipment services over an agreed-on period, with the government making regular prearranged payments based on established performance parameters. This description classifies MES under selective or health services model of health Public Private Partnership. This arrangement allows Public Sector to transfer technological, financial, and operational risks to the private sector. This health PPP is associated with increased equipment reliability and sustainability. For instance, in Kenya, radiology equipment has been hailed for improved access to radiology services, improved skills set among healthcare workers and reduced patient referrals. However, MES has its limitations in that there is no guarantee that the equipment will be fully utilized unless the government has done a comprehensive need analysis of demand for care, contractual issues, availability of requisite infrastructure, availability of medical specialist and high charges for specialized services. Nevertheless it is worth noting that each health PPPs is context specific and has certain pros and cons therefore, 'one size fits all' approach is unlikely to yield significant economic and healthcare dividends (Le et al., 2020).

### **2.3.2. Critical Success Factors**

Critical success factors (CSF) are the few key areas of activity in which favorable results are absolutely necessary for a particular manager to reach his or her goals (Rockart, 1982). According to Lim & Mohamed, (1999), they are a set of situations and facts that ensure a project is successful. In the context of PPP, they are those factors that must be maintained to increase the success rate of a project thereby achieving the objectives of different stakeholders (Morledge & Owen, 1998). Assessment and exploration of the dominant Critical Success Factors in both developing and developed countries has led to successful progress of PPP implementation in these countries (Osei-Kyei & Chan, 2015a; Cheung et al., 2012; Abdel Aziz, 2007). This corroborates the findings of Wibowo & Alfen, (2014) that certain critical conditions need to be met before a PPP could succeed in a country. This concept has been explored from different perspective of countries, sectors and models (Osei-Kyei & Chan, 2019). This is discussed in the following subsections.

#### **2.3.2.1. Political Goodwill**

United kingdom and Australia have recorded the largest number of successful PPP projects (Osei-Kyei et al., 2017). A study done by Blanken & Dewulf, (2010) in United Kingdom and Australia noted that, to recognize the success or failures of Hospital PFI-PPPs it is crucial to scrutinize the political motives that inspired their initiation. Lesotho healthcare PPP adopted Design Build Finance Operate model whereby the private operator provided the clinical services at an affordable price attributed it Critical Success Factors to political goodwill and right advice to the government (International Finance Corporation, 2011). A report done by UNECE et al., (2012) further stated that, were it not for the support of Minister of Health in Lesotho, undertaking of the PPP would have been extremely difficult. Hospital de la Ribera a Spanish PPP which had entered a ten-year contract with Valencian government to manage clinical and non-clinical facilities succeeded in providing access to quality healthcare services after getting financial support from regional politicians (Thomason & Rodney, 2009). A Malaysian health PPP attributed unwavering support by policy makers as one of its Critical Success Factors (Phua et al., 2014). Ghana used a hybrid type of health PPP which leverages the strengths of private and public sectors for healthcare provision attributes one of its success to political commitment (International Finance Corporation, 2011). A study done by Medhekar, (2014) on Public-private Partnerships for Inclusive Development: Role of Private Corporate Sector in Provision of Healthcare Services further illustrates that political

commitment among shareholders is key to providing efficient, effective, equitable and accredited quality healthcare and thereby ensuring universal access to healthcare.

### **2.3.2.2. Human Resource**

Brazil's first health PPP was in the form of management contract whereby the government of Brazil contracted several not for profit companies to manage new hospital that had been equipped and built by the government attributes that the most important factor to be adequate support for its team and representation of its public appointees in dockets such as finance, health, and civil affairs (International Finance Corporation, 2011). A similar study on Health PPP in Brazil Sao Paulo, adopted a PPP model in the form of operating contract whereby the best operators were chosen to take over the facility attributed its critical success to giving facility managers leeway to manage human resources (Forgia & Harding, 2009). PPP was used in Akwa Ibom State of Nigeria, registered a considerable improvement in detection and reduction of Tuberculosis. This was achieved through strengthening the capacity of laboratory by organizing workshop to train the TB supervisors and laboratory technicians and providing them with high resolution microscopes as well as furnishing of the staff offices (Asuquo et al., 2015). The Government of Lesotho adopted a Design Built Operate health PPP model in its bid to increase quality and access to health care attributed empowerment and training of managers and staff as the key drivers of improved performance (Vian et al., 2015). (Hellowell, 2012) further reaffirms the need of substantial investment in human resource by the Government to achieve full rewards of PPPs in health systems.

### **2.3.2.3. Contractual agreement**

A study by Nose, (2017) showed that in as much as governments are advocating the use of PPPs, contractual disputes still remain high with significant cost. Weak contract management has been the weak point that eventually has resulted to the downfall of PPPs in developing countries (Forgia & Harding, 2009). According to a study by Dalton-Jez et al., (2012) on Public Private Partnerships in Canadian Health Care, the stakeholders affirmed that, due to the complex nature of contracts, a clearly defined accountable structures in the formal contract agreement was key in successful execution of PPP project. A study by International Finance Corporation, (2019) on Public-Private Partnerships for Emerging Markets in Health established that institutional capacity around PPPs as critical in achieving their success. An example of the institutional capacity was ensuring the public party has in place a well-developed contract with defined outcomes. According to Wong et al., (2015) on a study to examine and learn health sector PPPs in Hong Kong, Contract flexibility stood

out as one of the key factors that ensured their sustainability. Malaysia used a Public Private Partnership Facility Management (FM) model for the healthcare services and one of the most significant challenges for its implementation was the complexity of the project and difficulty in reaching agreements with all parties involved (Hashim et al., 2016). Inherent in these partnerships is the complexity of bringing together parties with divergent agenda and accountability system (De Pinho Campos et al., 2019).

#### **2.3.2.4. Innovation**

Public Private Partnership can combine the strength of private actors like innovation among others to provide a conducive environment for delivering high quality health infrastructure and services. However, the private actors commitment to innovation is constrained by complexity and inflexibility of the contracts (Roehrich et al., 2014). For instance clinicians input in the design and procurement of healthcare PPPs led to more innovative project outcome (Barlow & Köberle-Gaiser, 2008). PFI model used in United Kingdom was a project delivery model that resulted to less innovative outcomes. A study of health PPPs in Gauteng Province in South Africa noted that having innovative ways of delivering health services by overcoming bureaucratic and rigid administrative processes as one of critical success factor (Kula & Fryatt, 2014). In West Africa, successful PPPs for health control encompassed non-governmental developmental organizations (NGDOs) in a bid to fight an eye ailment onchocerciasis. The innovative approaches developed by these NGDOs by engaging in an operational research led to mass drug administration of Vitamin A deficiency and consequently eliminating blinding trachoma (Bush & Hopkins, 2011). A similar study by Reich, (2002) in Morocco had indicated that innovative partnerships of international, governmental and non-governmental organizations as an important success factor for the Trachoma initiative. New Zealand registered successful PPPs in its public health sector after adopting innovative approaches such as health Alliance (hA), which was a public health procurement company that undertook a strategic approach to procurement, as opposed to relying on traditional models of procurement that are somewhat ad hoc. This strategic approach resulted into successful health policy outcomes and efficiency savings (Asquith et al., 2015). A similar view is shared by Roehrich et al., (2013) who noted that, below standards performance and cost overruns in public hospitals spurred Portugal to adopt a new procurement model in the form of accommodation only health PPP as opposed to relying on traditional contracts in procuring public hospitals because it believed that operational efficiency gains would emanate from these PPPs and spread to other hospitals. (Woodson, 2016)

notes that health PPPs are central to health innovation system for diseases of the poor and further points out that PPPs have learnt to embrace patent protection for different markets thereby allowing them to work with more companies resulting to an increased number of contracts signed.

#### **2.3.2.5. Expertise**

A study on Public Private Partnerships to global health issues in Korea highlighted the importance of establishing a partnership principle that can maximize the capability of each sector for the PPP to be successful. Competency was among the most appropriate principle (Lee, 2013). This study compliments the one of Widdus, (2003) who had highlighted the importance of tapping into expertise of different actors in order to achieve synergies that would help combat intractable problems inherent in health sector arena. Pink Ribbon Red Ribbon (PRRR) was a PPP that was designed to support the control of Cervical cancer in Africa and Latin America. Capitalizing on the efficiency and expertise of different organizations enabled it to operate well. Global Alliance for Vaccines and Immunization (GAVI), is a form of PPP which consolidates the demand of LMICs through incentivizing pharmaceutical production and hastening the availability of drugs through partnerships with multilateral agencies, industry and the beneficiary government attributes its success to the key people on its governance structure with technical skills (Jensen, 2016). (Kula & Fryatt, 2014) concludes that harnessing the contracting expertise in private providers to be among the factors that contribute to successful health PPPs in South Africa. Leveraging on the experience and expertise of private sector has been instrumental in improving loyalty, faith and trust among patients and ultimately better delivery of public health care (Taylor, Rachel M., Christian, Jennifer, 2016).

#### **2.3.2.6. Stakeholder involvement**

PPPs have a wide variety of influential and interested stakeholders with divergent economic, political social and environmental concerns. The support of these stakeholders is critical to project success or failure (Florizone, Richard; Carter, 2013). For instance stakeholders opposition has been the main reason for failure in PPPs and this can be remedied by capturing and addressing their views in order to attain a successful PPP (El-Gohary et al., 2006). A similar view was shared by Berg, (2000), who indicated the importance of undertaking stakeholders analysis on the distribution of project benefits before the awarding of the contract. PPP designs that have failed to benefit majority of stakeholders have ended up in renegotiations and consequently project failures (Leigland, 2018). A study done in Sindh, Pakistan indicated that lack of effective engagement with key stakeholders

and resistance among healthcare workers as the key barriers to implementation of health PPPs (Khan & Puthussery, 2019). Myanmar developed a Health System Strengthening (HSS) strategy through a support from Global Alliance for Vaccine and Immunization (GAVI), a form of PPP, attributed wide stakeholder participation as the Critical Success Factor (Tin et al., 2010). United Kingdom used Local Improving Finance Trusts (LIFTs) a form of PPP that took the model of Private Financing Initiatives to address the poor state of primary care that existed in its healthcare, reckoned that stakeholder involvement as a success factor that led to increased ownership and realization of innovative benefits in LIFTs projects (Beck et al., 2010).

#### **2.4. Research Gap.**

Although PPPs have elicited practitioner and academic interest over the last two decades, there has been no attempt to integrate the general and health management literature to provide a holistic view of PPPs in healthcare delivery (Roehrich et al., 2014). This is also highlighted by Torchia et al.,(2015b) who notes that despite great interest globally in using PPP model to improve healthcare, the key drivers and features that contribute to PPP success have not been ascertained for healthcare. The study by Maikisch & Nikolic,(2006) notes the importance of drawing lessons from international experience that will inform the success of planned health PPPs. He points out that specific country experience should not be replicated to other countries due to differing health systems, legal frameworks, skills level, level of development or any other pertinent factors. A recent study by Cui et al., (2018), further emphasizes this, in that, given a wide spectrum and coverage of studies around Critical Success Factors, both practitioners and researchers are having challenges in identifying the most Critical Success Factors for PPPs irrespective of country, sector, stage or project model.

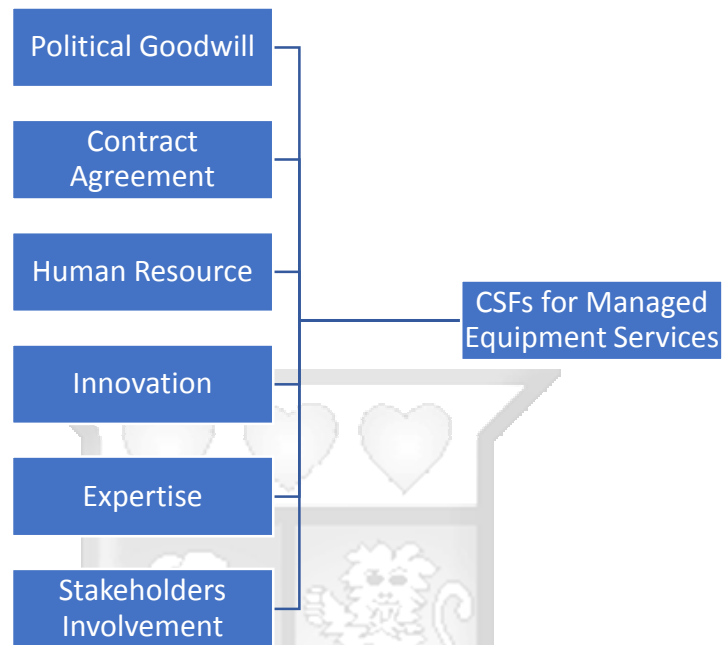
By examining the Country experience and the PPP Models adopted in relation to the Critical Success Factors for health PPPs, it is evident that these factors are unique and cannot be easily replicated into other jurisdiction models or sectors. For instance, in Brazil two different types of health PPPs sharing the same jurisdiction regard a proper human resource management as a critical success factor. Another study on health PPPs in Ghana and Lesotho adopting different models and being in different jurisdictions, the element of political goodwill cuts across the two as a one of the Critical Success Factors. United Kingdom and Australia are two developed countries sharing similar model PFI (private financing initiatives) which are in unison regarding politics as a critical success factor.

It is evident that these CSFs are unique to a country context, PPP model context and sector perspective. Developed and developing countries have both reported successful partnerships in healthcare provision from which, critical lessons can be derived for future case studies (Shadrack & Siphon, 2010). While PPPs have recorded a high recognition in western countries there is no empirical evidence in relation to their performance in LMICs (Least and Middle-Income Countries) which are full of implementation challenges (Hellowell, 2012) yet they require support to overcome the dwindling healthcare systems and meet the rising demands of healthcare priorities (Jensen, 2016). Jomo, Chowdhury, Sharma, & Platz, (2016) affirms this by noting that PPPs on several occasions have not brought out the envisioned advances in quality of service provision, including improving efficiency in the societal sector such as hospitals and schools where access and impartiality are major concerns.

PPPs form a blueprint that enables public and private collaboration in Least and Middle income to optimize resources for health provisions (International Finance Corporation, 2019). While studies have demonstrated the CSFs applicable to various countries, question still lingers as to what really constitutes the Critical Success Factors for health PPPs in Least and Middle Income Countries (LMIC), Kenya being among them according to (Fantom & Serajuddin, 2016; Bresee et al., 2019). Furthermore, studies like one done by Chileshe et al., (2020) show that there is paucity of studies that examine CSFs in the context of developing countries in Sub-Saharan Africa such as Kenya. The stakeholders involved in the health PPPs have various interest which influence their perception on the Critical Success Factors. Their views hence should not be overlooked for successful PPP to be attained. According to Robert Osei - Kyei Albert P.C. Chan, (2017) little attention is being paid to the divergent stakeholders views pertaining PPP success in spite of wide Coverage on CSFs.

## 2.5. Conceptual Framework

Figure 2. 3: Conceptual framework of Critical Success Factors for Health Public-Private Partnership



Source: (Researcher, 2020)

The stakeholders in the Managed Equipment Services (MES), have divergent views as to what are the CSFs. (Cui et al., 2018) after noting the challenges that researchers and practitioners experience in identifying the CSFs, points out the importance of examining, analyzing, and summarizing the key findings of studies done before in order to broaden the understanding of the most CSFs. The Independent variables adopted the key findings of factors that are critical for the success of health PPPs demonstrated in the literature review which were then contextualized and analyzed to establish the Critical Success Factors for MES and also to ascertain the relationships of the CSFs with each other in Narok county.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1. Introduction**

This section outlines methodology used to conduct this research. This section will start with the research philosophy research design and thereafter population and Sampling procedure, data collection methods and instruments and end with data analysis methods.

### **3.2. Research Philosophy.**

The study adopted a positivist philosophy. This philosophy entails working with observable social reality to produce law-like generalizations. The researcher under this philosophy is able to remain neutral, detached and independent thereby maintaining an objective stance (Mark et al., 2019). Positivist researcher as noted by Mark Saunders et al.,(2013), is highly reliant on structured methodologies with much focus on quantifiable observations that can be subjected to statistical analysis.

### **3.3. Research Design.**

The study adopted a cross-sectional survey design. This design involves getting data at a defined snapshot in time, whereby the respondents are accessed once on their perspective of variables under the study. This design can be used to suggest possible reasons for a relationship between variables and produce models of these relationships. It is often obtained through administering questionnaire to a sample thereby collecting quantitative data that can be analyzed by use of descriptive and inferential statistics for ease of comparison (Mark Saunders et al., 2013).

### **3.4. Study Population and Sampling procedure.**

#### **3.4.1. Population**

According to Kothari (2004), a population is a well-defined set of people, services, elements, events, group of things or households that are being investigated. The target population of this study comprised of County Health Management Team (CHMT) who according to Kenya HealthCare Federation, (2016) are tasked to provide both technical and professional management structures that ultimately coordinate the health service delivery through the health facilities present at the County. A study by Lairumbi et al., (2017) showed that Narok County was able to register an improvement

in partnership and governance as a result of leadership of the CHMT in monitoring progress of performance indicators, identifying gaps and making corrective measures. The total number of County Health Management Teams and Sub County Health Management Teams in Narok is sixty-Seven (67), out of which twenty-four (24) are in Narok referral Hospital and eight (8) in Trans-Mara West Sub-County hospital. A census of thirty-two (32) both the County Health Management Teams (CHMT) at Narok Referral Hospital and the Sub-County Health Management Teams (SCHMT) at the Trans-Mara West Sub-County Hospital was thus conducted owing to the small number of the respondents. Census is using the entire population as a sample and is appropriate for small population of less than two hundred (200) (Israel, 1992). According to Sekaran & Bougie, (2016), census has no sampling error and a more detailed information about the study problem is likely to be gathered.

### **3.4.2. Sampling**

According to Lavrakas, (2008) purposive sampling, also known as judgmental or expert sample is a type of non-probability sample whose main objective is to produce a sample that can be logically assumed to be representative of the population. This is achievable by using the experts' knowledge of the population to select in a non-random manner a sample of the elements, that are a representation of a cross-section of the population. This kind of sampling has been advocated by Solomon et al., (2012), to be the suitable technique in PPP research. (Osei-Kyei et al., 2017) further highlights the suitability of this technique when identifying the initial respondents in a PPP study to be due to undeveloped state of PPP markets in many countries and the demand of experienced PPP experts because of complexity of qualitative decisions factors.

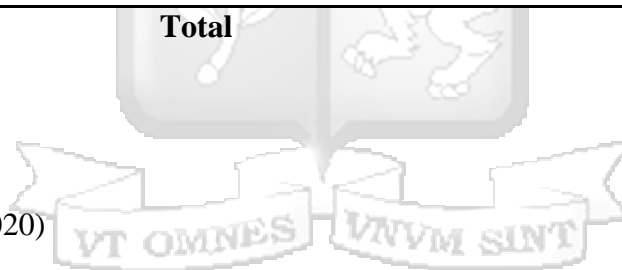
Purposive sampling was employed whereby the respondents were purposively selected from various organizations based on their experience with MES. The respondents as illustrated on figure 3.1 below comprised of industry researchers on health PPPs since they have wealth of knowledge and emerging trends around PPPs space; County Executive Committee (CEC) in charge of Health and Sanitation since (s)he is at helm of leadership and proposes or implements legislations on matters related to health; PPP advisory like the IFC who have insights on the drivers of health PPPs; Ministry of Health (MoH) since it assumes the responsibility of appointing the ministry representatives to MES oversight team, receiving and verification of reports from the County and building capacity for the counties on contract management; and the Suppliers of medical equipment

since they assume risk and responsibility of procuring, installing, maintaining, training of staff and replacing the equipment. These stakeholders were subjected to Key Informants Interview (KII).

Figure 3.1: Respondents for Key Informant Interviews

Profile of respondents for Key Informants Interviews	Sampling Criteria- one officer purposively selected from each respective organization
Contracting Authority; - Ministry of Health PPP Unit	1
Private Party; - General Electric, Phillips	2
Narok County Executive Committee for Health and Sanitation	1
PPP Researcher	1
PPP Advisory- International Finance Corporation (IFC)	1
<b>Total</b>	6

Source: (Researcher, 2020)



### 3.5. Data Collection

#### 3.5.1. Data collection method

The study adopted a multiple method of data collection whereby according M. Saunders et al., (2009) the data collection techniques employed may be various and are likely to be used in combination. The study employed a combination of Key Informant Interviews (KII) and questionnaires.

#### 3.5.2. Data collection Tools

The study adopted primary data collection methods of interview and questionnaire. In questionnaire survey the respondents are normally asked same and standard questions using predesigned survey

tool (S. Zhang et al., 2016). Similar questionnaire has been adopted by (Li et al., 2005; Ismail, 2013b) on research of Critical Success Factors of PPP. Osei-Kyei & Chan, (2015) notes that questionnaire survey has been accepted for the last 23 years on studies about PPP Critical Success Factors. The questionnaire was designed in reflection of the study objective with two sections to collect data. Section A comprised General information to collect demographics of respondents i.e. gender, educational level, and their professional cadre. Section B comprised 4-point Likert Scale to collect respondent's extent of agreement on the variables under analysis with 1 being no extent and 4 being great extent. Questionnaire was administered to both the County Health Management Team and the Sub-County Health Management Teams at Narok County referral hospital and Trans-Mara West Sub-County hospital, respectively. The sample questionnaire is provided under appendix III.

The industry researchers on health PPPs, private consultants, PPP experts affiliated to other institutions, Ministry of Health and Suppliers of the medical equipment were subjected to Key Informant Interviews (KII). This method was selected because the Key Informants are fit to provide expert source of information. The researcher further considered key characteristics while identifying the Key informants to be their willingness to share knowledge, their role in the organization, ability to communicate whilst maintaining an objective stance (Marshall, 1996). The Key Informant guide provided in appendix IV was developed to ensure that the researcher maintains focus of the goal of the interview.

### **3.6. Data Analysis Method**

Mean score of the benefit of success factors were subjected on four-point Likert scale to come up with a descriptive statistic. Based on the mean scores and standard deviation, the factors were classified according to the importance, as known by the respondents. Thereafter, Spearman rank correlation coefficient to measure the agreement on rating of CSFs under review between the stakeholders. The Spearman's rank correlation test was also used to evaluate the correlation of Critical Success Factors under review. Spearman's correlation was deemed fit for the analysis since it is best at depicting monotonic relationships of paired variables in ordinal scale (Ellis and Victoria, 2011).

Qualitative Content analysis was conducted in this study to complement the statistical findings. In this analysis textual data is explored inductively to produce categories and explanations (Pope et al., 2000). The interviews of Key Informants were transcribed and analyzed through inductive content

analysis. This approach allows the name of the Critical Success Factors to flow freely from the data rather than coming up with a preconceived grouping and ultimately the overarching Critical Success Factors with their respective statements. According to Kolbe & Burnett, (1991) this method is effective in systematically evaluating all recorded communication.

### **3.7. Research Quality**

#### **3.7.1. External Validity**

External validity is concerned with identifying the areas in which the study's findings can be generalized (Robert K. Yin, 2009). The same is echoed by Mark Saunders et al., (2013) as the extent to which findings can be generalized from one group to another. Critical Success Factors in health sector are unique and hence should not be replicated to other countries or PPP models. Therefore, the findings of this study cannot be equally applicable to other research settings.

#### **3.7.2. Internal Validity**

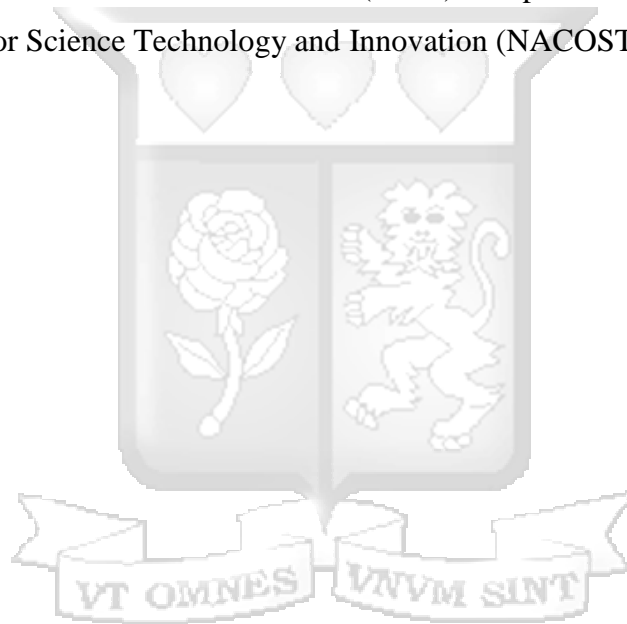
Validity is the degree to which a measuring instrument actually measures what it purports to measure (Anastasi & Urbina, 1997). Internal validity in this study was achieved through reliance on multiple methods of data collection of questionnaires and interviews thus eliminating over reliance on one method which could ultimately lead to biasness. To ensure that the respondents to the questionnaire understood what was required of them, the questions were made clear, precise, and direct. Content validity was further employed to ensure fair and comprehensive coverage of the research questions by the questionnaire. The variables were operationalized to ensure that there were no gaps in the questionnaire. Face validity was used to ensure the contents of interview guide were relevant, reasonable, unambiguous, and clear.

#### **3.7.3. Reliability**

Reliability is concerned with the robustness of the questionnaire, in that, it will yield consistent results at different instances and conditions (Mark Saunders et al., 2013). Prior to using the questionnaire to collect data, it was subjected to a pilot test which hence helped refine it by the assessment of questions validity. Cronbach Alpha was used to gauge reliability by determining internal consistency of the items in survey instrument. The alpha coefficient value ranges from 0 to 1 whereby the minimum acceptable value is 0.7 out of the maximum value of 1 (Gliem & Gliem, 2003).

### 3.8. Ethical Consideration

The principles of informed consent, voluntary participation, confidentiality of responses, privacy and anonymity was addressed in the study. A study by (Dale et al. 1988; Mark Saunders et al., 2013) indicated that research associated with questionnaire and survey strategy to be having fewer ethical problems. Informed consent was sought through approaching an interviewee and informing him or her the purpose of the study. This was done through the introductory letter (Draft captured in Appendix I and II). The letter also shows that that data collected was treated with utmost confidentiality and the findings availed upon request by the respondent. The study sought clearance from Institutional Research and Ethics Committee (IREC) and permit to conduct the study from National Commission for Science Technology and Innovation (NACOSTI).



## CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS

### 4.1. Introduction.

This chapter examines the findings from the data collected. They study targeted County and Sub-County Health Management Teams since they are instrumental in monitoring progress of performance indicators, identifying gaps and making corrective measures, and coordination health services delivery at the county. Key Informants purposively selected based on their knowledge and experience with Managed Equipment Services were also targeted. They included industry researchers, CEC in charge of health in Narok, PPP advisory, Ministry of Health, and suppliers of medical equipment. The views of these stakeholders were then analyzed to ascertain which amongst Political goodwill, Contractual Agreement, Human Resource, Innovation, Expertise and Stakeholder Involvement is Critical Success Factors for Managed Equipment Service in Narok County and relationship of Critical Success Factors. The methods used to analyze the data was descriptive statistics, qualitative content analysis and spearman's rank correlation.

### 4.2. Response Rate.

The study targeted County Health Management Teams (CHMT) and Sub County Health Management Teams (SCHMT) in Narok County referral hospital and Trans-Mara West Sub-County hospital, respectively. Owing to the small number of the respondents, a census was conducted by administering thirty-two (32) questionnaires. All the six (Six) Key Informant Interviews (KII) were all conducted. The response rate was thus 100% for both the questionnaire survey and Key Informant Interviews.

*Table 4.1: Response Rate*

	<b>Number of questionnaires issued</b>	<b>Completed questionnaires</b>	<b>Response rate</b>
Number of respondents	32	32	100%
	<b>Key Informants Interviews target</b>	<b>Key Informants Interviews conducted</b>	<b>Response Rate</b>
Number of respondents	6	6	100%

### 4.3. Reliability and Validity Tests.

The validity and reliability of the survey data was statistically analyzed using Cronbach's Alpha  $\alpha$ . The values in Cronbach's Alpha,  $\alpha$  ranges between 0 and 1, whereby the an alpha value greater than 0.7 is considered acceptable, implying that the data set has good internal consistency and reliability (Nunnally, 1978). The item-total correlation can also be used as a measure of internal consistency and its usual to report Cronbach Statistics  $\alpha$  of separate domains of questionnaire rather than for entire questionnaire (Rattray & Jones, 2007). Moreover, studies by Kember & Leung, (2008) show that a reduced version of questionnaire can still provide a valid measure of structure envisaged in its design and the importance of removing items that have least significant contribution to the scale and detrimental effect on alpha value. The summary is presented in table 4.2.

Table 4.2: Reliability of Data Collection Tool – Cronbach's Alpha.

<i>Variable</i>	<b>Cronbach's Alpha</b>	<b>Nos. of Items</b>
Political Goodwill	0.655	4
Human Resource	0.726	4
Contract Agreement	0.734	4
Innovation	0.542	2
Expertise	0.703	3
Stakeholder Involvement	0.519	3
<b>Overall</b>	<b>0.797</b>	<b>20</b>

The overall value of the Cronbach Alpha  $\alpha$  in this study is 0.797, and above the recommended threshold of 0.7 which indicates the reliability and internal consistency of the survey instrument (Hashim et al., 2016). In as much as Political Goodwill, Innovation and Stakeholder Involvement had Cronbach Alpha  $\alpha$  below the recommended reliability score, they were nevertheless included in the research. Other studies like one done by Field, (2002), suggest an alpha value greater than 0.60 as adequate for survey instrument. (Nunnally, 1978) further points out that lower threshold can sometimes be used in the literature. Moreover, studies like one done by Tavakol & Dennick, (2011) show that high alpha coefficient value does not necessarily imply high degree of internal consistency.

Kaiser-Meyer-Olkin (KMO) statistic and Bartlett’s test of sphericity was conducted to measure the adequacy of the sampling size and the interdependence of subscales of the questionnaire, respectively. The KMO statistic values range between 0 and 1 whereby a value of 0.5 is considered acceptable for statistical factor analysis (Norusis, 2012). The KMO value of all the variables under analysis met the acceptable threshold and the Bartlett’s significance values are less than 0.05 ( $p < 0.05$ ). The summary is presented on table 4.3.

*Table 4.3: Adequacy of Sampling size – KMO statistic and Bartlett’s test*

<b>KMO and Bartlett's Test</b>				
<b>Constructs</b>	<b>KMO</b>	<b>Approx. Chi-Square</b>	<b>df</b>	<b>Sig.</b>
<b>Political Goodwill</b>	0.637	13.905	3	0.003
<b>Human Resource</b>	0.735	29.353	6	0.000
<b>Contract Agreement</b>	0.619	45.942	6	0.000
<b>Innovation</b>	0.500	4.388	1	0.036
<b>Expertise</b>	0.639	17.532	3	0.001
<b>Stakeholder Involvement</b>	0.500	4.638	1	0.031

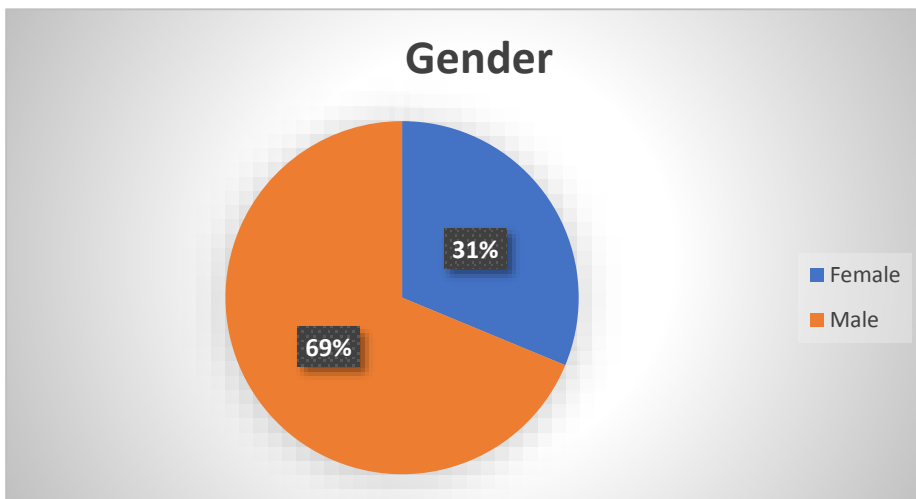


#### 4.4. Demographic Statistics.

This section examines the general profile of the respondents in this study to gain an appreciation of the data collected.

##### 4.4.1. Gender of Respondents

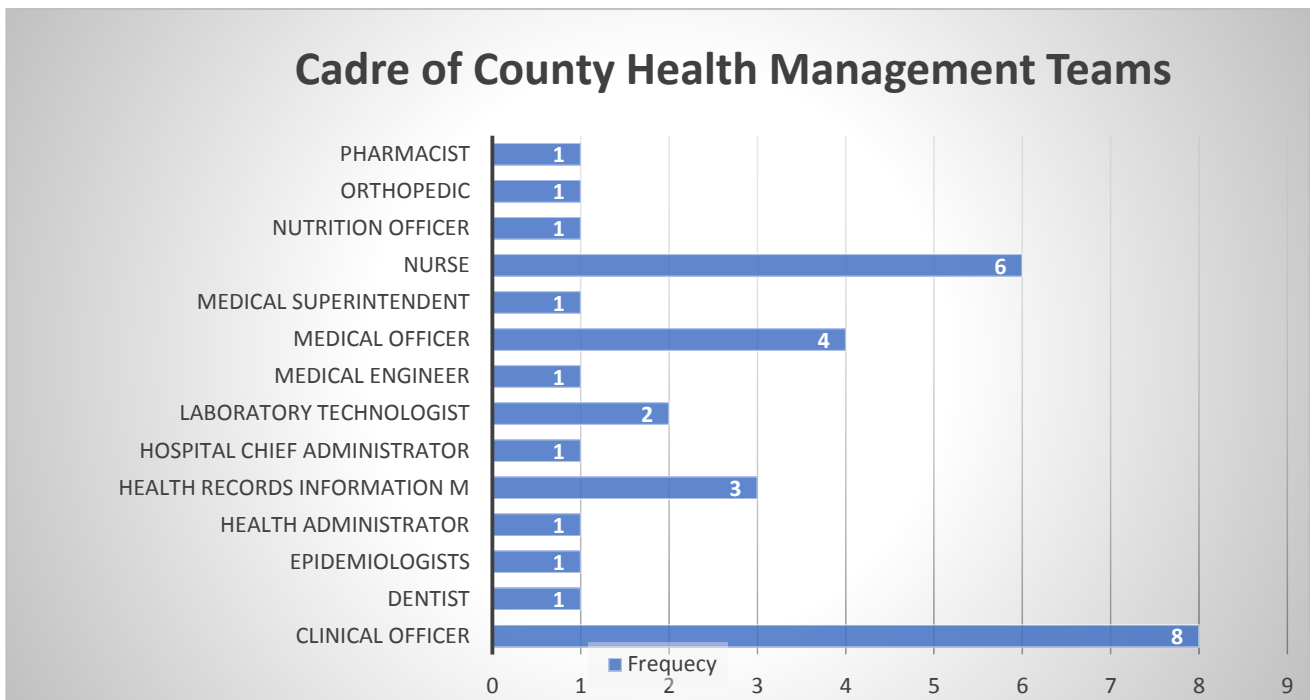
*Figure 4.1: Gender of respondents Pie Chart*



Majority of the respondents were male. According to the results shown in figure 4.1, 69% of the respondents were male while 31% of them were female. This implies that the views expressed in the findings of this study to be a representative of the opinion of both genders.

#### 4.4.2. Cadre of Respondents

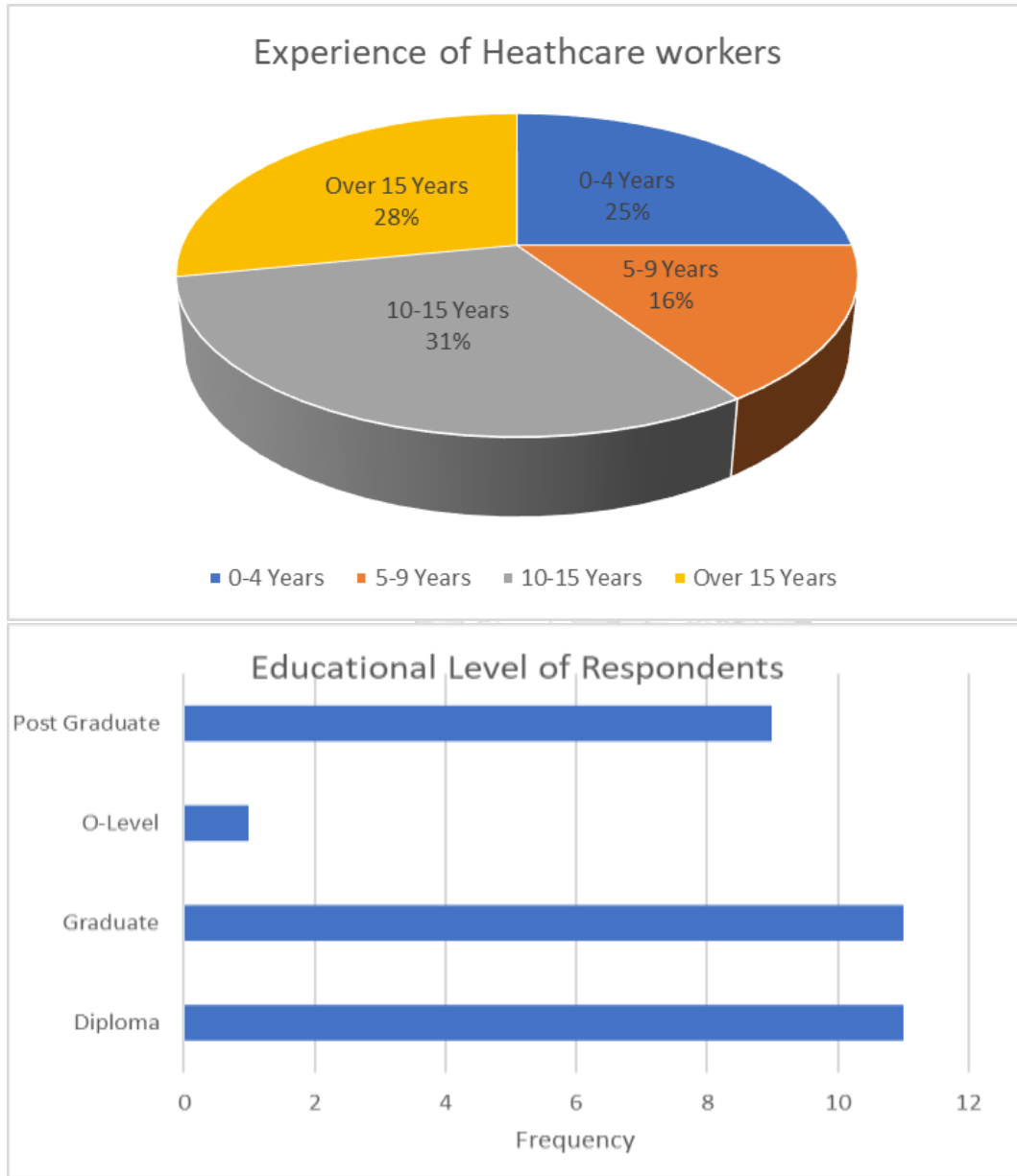
Figure 4.2: Cadre of respondents Bar Chart



The respondents were distributed in Narok referral hospital and Trans-Mara West Sub-County hospital. Majority of the respondents were Clinical officers 8 (eight) in number, followed by nurses 6 (Six) and Medical officers 4 (four). Inference being the various cadre of the County Health Management Teams interact with the specialized medical equipment under MES and hence have vital information pertaining its performance. For instance, Clinical officers, Medical officers, and nurses rely on patient monitors and defibrillators for perform their duties. The health records management officers and administrators are instrumental in noting the performance and maintaining the records of these machines and patients. In as much as the cadre of Orthopaedic, Dentist, Epidemiologist, Medical engineer, and laboratory technologist, nutrition officer and pharmacist recorded a lower frequency, they nevertheless use these medical machines.

#### 4.4.3. Experience of respondents and level of education attained.

Figure 4.3: Experience and Educational level of respondents' pie chart and Bar graph



Majority of the respondents had vast experience in their specialty and advanced level of training/education as illustrated on figure 4.3. It can be inferred that the respondents are best placed to give information pertaining health sector and, in that connection, respond objectively on matters related to Managed Equipment Services.

#### 4.5. Analysis of the Critical Success Factors for Managed Equipment Services

Political goodwill, Contract Agreement, Human Resource, Innovation, Expertise and Stakeholder Involvement as Critical Success Factors for health PPPs were analyzed to establish the Critical Success Factors for Managed Equipment Services in Narok County. This was done through descriptive statistics, and qualitative content analysis. The Spearman’s rank correlation is then represented at the end to show the relationship of all the CSFs under review. The findings are presented in the following subsections.

#### 4.6. Political Goodwill

##### 4.6.1. Descriptive statistics of Political Goodwill.

The research study sought to establish political goodwill as a Critical Success Factor for MES in Narok County.

*Table 4.4: Scores on Political Goodwill as a Critical Success Factor in Managed Equipment Service*

	<b>Political Goodwill</b>	<b>1= No extent</b>	<b>2= Little extent</b>	<b>3= Moderate extent</b>	<b>4= Great extent</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
PG1	The county government is keen in bridging infrastructure gap, by equipping health facilities with medical equipment through Public Private Partnerships.	3.1%	43.8%	34.4%	18.8%	32	2.69	0.82
PG2	The county government policies on health are aligned to Sustainable development goal-3 better health and wellbeing for all ages.	3.1%	25.0%	46.9%	25.0%	32	2.94	0.8
PG3	Change in political regime is likely to have a negative impact on the success of Managed Equipment Service of attaining better health and wellbeing for all ages.	34.4%	18.8%	12.5%	34.4%	32	2.47	1.3
PG4	There is adequate government support in provision and maintenance of the medical equipment under Managed Equipment Services.	18.8%	25.0%	37.5%	18.8%	32	2.56	1.01
PG5	Other priorities of county government in healthcare provision hinder its ability to deliver better health and wellbeing for all ages through Public Private Partnership.	9.4%	34.4%	21.9%	34.4%	32	2.81	1.03
PG6	The pace at which better health and wellbeing of all ages is attained depends on the influence of individuals at leadership positions in health sector	12.5%	15.6%	21.9%	50.0%	32	3.09	1.09

From Table 4.4 above (i) The County government is keen in bridging infrastructure gap, by equipping health facilities with medical equipment through Public Private Partnerships had a mean response of 2.69 with an average deviation of 0.82. Most respondents on average agreed to a little extent to this statement. (ii) The County government policies on health are aligned to Sustainable development goal-3 better health and wellbeing for all ages had a mean response of 2.94 with

average deviation of 0.8. Most respondents agreed to a moderate extent that policies formulated by the County government are aligned to SDG-3. (iii) Change in political regime is likely to have a negative impact on the success of Managed Equipment Service of attaining better health and wellbeing for all ages had a mean response of 2.47 with average deviation of 1.3. Two faction of the most respondents were divided as regarding this statement as some agreed to a great extent and the other agreed to no extent. (iv) There is adequate government support in provision and maintenance of the medical equipment under Managed Equipment Services had a mean response of 2.56 with average deviation of 1.01. Most respondents agreed to a moderate extent in relation to this statement. (v) Other priority of County government in healthcare provision hinder its ability to deliver better health and wellbeing for all ages through Public Private Partnership. Two faction of the most respondents were divided as regarding this statement as some agreed to a little extent and the other agreed to a great extent. (vi) The pace at which better health and wellbeing of all ages is attained depends on the influence of individuals at leadership positions in health sector had a mean response of 3.09 with average deviation of 1.09. Most respondents agreed to a great extent in relation to this statement. Overall, it can be inferred that adequate support by the government compounded by good governance by individuals at the helm of leadership to be the contributing factors to the success of MES.

#### **4.6.2. Qualitative Content Analysis on Political Goodwill.**

The interviews of Key Informants were transcribed and analyzed through inductive content analysis. The process first identified statements from the transcribed interview of the key informants that referred to Political goodwill as Critical Success Factors for health PPPs in this case Managed Equipment Service. The statements were then underlined and rewritten into a condensed manner whilst maintaining the core meaning on a spreadsheet. They were then read carefully, compared, and synthesized into short sentences and further reviewed and assembled into groups sharing the same meaning. This process produced overarching statements linked to the theme of Political Goodwill as a Critical Success Factors for MES as shown in Table 4.5.

Table 4.5: Content Analysis Results on the statements linked to the theme of Political Goodwill

“Having governance and framework that ensured that everyone on board could take up their core competency” - <i>PPP Advisory (IFC)</i>	<b>Political Goodwill</b>
“Pushback from the governors citing the central government entering the MES arrangement was ill informed”- <i>Private Party (Phillips)</i>	
“The government has not created a favorable environment to ensure faster pace in adopting health PPPs”- <i>MoH PPP unit</i>	
“Policy advice not onboarded and poor state of infrastructure leading to idle state of equipment”- <i>PPP Advisory (IFC)</i>	
“Ensuring that Ministry of Health and the County government are properly funded through approval of budgetary allocation on healthcare by members of parliament and County Assembly”- <i>MoH</i>	
“Government failure to fulfill its mandate like paying the medical suppliers on time”- <i>Private Party (G.E)</i>	
“Having enabling environment like providing guarantees and viability gap funding to boost investors’ confidence in PPPs”- <i>Industry Researcher</i>	
“Providing adequate infrastructure for the private party to operate on” <i>PPP - Advisory (IFC)</i>	

A key observation is that most of the respondents considered that support from the government by providing suitable operating environment, funding, and governance as critical to the success of MES.

## 4.7. Contract Agreement

### 4.7.1. Descriptive statistics of Contract Agreement.

The research study sought to establish Contract Agreement as a Critical Success Factor for MES in Narok County.

*Table 4.6: Scores on Contract Agreement as a Critical Success Factor in Managed Equipment Service.*

		1= No extent	2= Little extent	3= Moderate extent	4= Great extent	N	Mean	Std. Deviation
	<b>Contract Agreement</b>							
CA1	The objectives stipulated in the contract are aligned towards attainment of better health and wellbeing for all ages in Narok County.	9.4%	25.0%	43.8%	21.9%	32	2.78	0.91
CA2	Clauses on the Managed Equipment Service contract are conspicuous and easy to interpret.	28.1%	37.5%	28.1%	6.3%	32	2.13	0.91
CA3	There is clear mechanism of dispute resolution in the contract agreement.	18.8%	43.8%	28.1%	9.4%	32	2.28	0.89
CA4	The contract is flexible enough to meet the ever-changing needs of healthcare in Narok County	15.6%	37.5%	34.4%	12.5%	32	2.44	0.91
CA5	There is difficulty in reaching an all-inclusive agreement among stakeholders involved in the Managed Equipment Service.	12.5%	40.6%	15.6%	31.3%	32	2.66	1.07

From Table 4.6 above: (i) The objectives stipulated in the contract are aligned towards attainment of better health and wellbeing for all ages in Narok County had a mean response of 2.78 with average deviation of 0.91. Most respondents agreed to a moderate extent in relation to this statement. (ii) Clauses on the Managed Equipment Service contract are conspicuous and easy to interpret had a mean response of 2.13 with average deviation of 0.91. Most respondents agreed to a little extent in relation to this statement. (iii) There is clear mechanism of dispute resolution in the contract agreement had a mean response of 2.28 with average deviation of 0.89. Most respondents agreed to a little extent in relation to this statement. (iv) The contract is flexible enough to meet the ever-changing needs of healthcare in Narok County, respectively had a mean response of 2.44 with average deviation of 0.91. Most respondents agreed to a little extent in relation to this statement. (v) There is difficulty in reaching an all-inclusive agreement among stakeholders involved in the Managed Equipment Service had a mean response of 2.66 with average deviation 1.07. Most

respondents agreed to a little extent in relation to this statement. Overall, it can be inferred that by having clarity on the contents of the contract is Critical for the Success of MES.

**4.7.2. Qualitative Content Analysis on Contract Agreement.**

The interviews of Key Informants were transcribed and analyzed through inductive content analysis. The process first identified statements from the transcribed interview of the key informants that referred to Contract Agreement as Critical Success Factors for health PPPs in this case Managed Equipment Service. The statements were then underlined and rewritten into a condensed manner whilst maintaining the core meaning on a spreadsheet. They were then read carefully, compared, and synthesized into short sentences and further reviewed and assembled into groups sharing the same meaning. This process produced overarching statements linked to the theme of Contract Agreement as a Critical Success Factors for MES as shown in Table 4.7.

*Table 4.7: Content Analysis Results of the statements linked to the theme of Contract Agreement*

<p>"Contents of the contract unknown to the governors"-<i>MoH PPP unit</i></p>	<p><b>Contract Agreement</b></p>
<p>"Disagreement between the National Government and County Government on the modalities of procurement of the medical equipment leading to legal tussles in Court"- <i>Private Party (G.E)</i></p>	
<p>"Having mechanisms and Structures that locks out unethical practices like Corruption in health PPPs"-<i>Industry Researcher</i></p>	
<p>"The need analysis/assessment was not done prior to procuring the equipment and the whole MES project was pushed down the County governors throat"- <i>PPP Advisory (IFC)</i></p>	
<p>"Value for money for the government and Commercial Viability for the private Party involved in MES is Critical Success Factor"-<i>PPP Advisory (IFC)</i></p>	

A key observation is that clarity and mutual agreement of the details of the contract by the parties involved are Critical for the Success of MES.

## 4.8. Human Resources

### 4.8.1. Descriptive statistics of Human Resource.

The research study sought to establish Human Resource as a Critical Success Factor for MES in Narok County.

*Table 4.8: Scores on Human Resource as a Critical Success Factor in Managed Equipment Service*

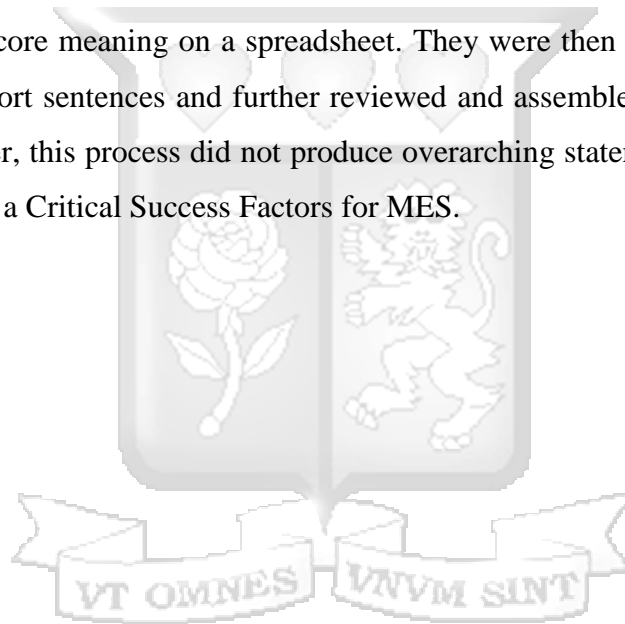
	<b>Human Resource</b>	<b>1= No extent</b>	<b>2= Little extent</b>	<b>3= Moderate extent</b>	<b>4= Great extent</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
HR1	There is adequate awareness of health priorities among healthcare workers in Narok County especially sustainable Development goal 3.	9.4%	37.5%	37.5%	15.6%	32	2.59	0.87
HR2	Regular training of healthcare workers mandated to operate medical equipment under Managed Equipment Service (MES) will increase efficiency in healthcare delivery.	9.4%	9.4%	12.5%	68.8%	32	3.41	1.01
HR3	Experience in handling and use of the Medical equipment by healthcare workers is key to achieving better health and well being of all in Narok County.	3.1%		12.5%	84.4%	32	3.78	0.61
HR4	The views of healthcare employees are highly considered while making key decisions pertaining Managed Equipment Service.	28.1%	40.6%	21.9%	9.4%	32	2.13	0.94
HR5	Adequate human capital in Narok health facilities is critical to the success of Managed Equipment Service in achieving better health and wellbeing for all.	6.3%	6.3%	12.5%	75.0%	32	3.56	0.88

From Table 4.8 above: (i) There is adequate awareness of health priorities among healthcare workers in Narok County especially sustainable Development goal 3 had a mean response of 2.59 with average deviation of 0.87. Two faction of the most respondents were divided as regarding this statement as some agreed to a moderate extent and the other agreed to a little extent. (ii) Regular training of healthcare workers mandated to operate medical equipment under Managed Equipment Service (MES) will increase efficiency in healthcare delivery had a mean response of 3.41 with average deviation of 1.01. Most respondents agreed to a great extent in relation to this statement. (iii) Experience in handling and use of the Medical equipment by healthcare workers is key to achieving better health and wellbeing of all in Narok County had a mean response of 3.78 with average deviation of 0.61. Most respondents agreed to a great extent in relation to this statement. (iv) The views of healthcare employees are highly considered while making key decisions pertaining Managed Equipment Service had a mean response of 2.13 with average deviation of 0.94. Most respondents agreed to a little extent in relation to this statement. (v) Adequate human capital in

Narok health facilities is critical to the success of Managed Equipment Service in achieving better health and wellbeing for all had a mean response of 3.56 with average deviation of 0.88. Most respondents agreed to a great extent in relation to this statement. Overall, it appears that by having adequate human capital with experience in handling of the medical equipment in Narok healthcare facilities is a Critical Success Factor for MES.

#### **4.8.2. Qualitative Content Analysis on Human Resources.**

The interviews of Key Informants were transcribed and analyzed through inductive content analysis. The process first identified statements from the transcribed interview of the key informants that referred to Human Resources as Critical Success Factors for health PPPs in this case Managed Equipment Service. The statements were then underlined and rewritten into a condensed manner whilst maintaining the core meaning on a spreadsheet. They were then read carefully, compared, and synthesized into short sentences and further reviewed and assembled into groups sharing the same meaning. However, this process did not produce overarching statements linked to the theme of Human Resources as a Critical Success Factors for MES.



## 4.9. Innovation

### 4.9.1. Descriptive statistics of Innovation.

The research study sought to establish Innovation as a Critical Success Factor for MES in Narok County.

*Table 4.9: Scores on Innovation as a Critical Success Factor in Managed Equipment Service*

Innovation		1= No extent	2= Little extent	3= Moderate extent	4= Great extent	N	Mean	Std. Deviation
INNOV1	Managed Equipment Service has enhanced efficiency in healthcare provision by embracing advanced technology on the medical equipment.	6.3%	12.5%	34.4%	46.9%	32	3.22	0.906
INNOV2	Innovation is Critical factor in Managed Equipment Service to succeed in achieving better health and wellbeing for all in Narok County.	3.1%	6.3%	31.3%	59.4%	32	3.47	0.761
INNOV3	Health PPPs can reduce the imminent bureaucracy in government healthcare procurement procedures and consequently, better health and well being of all in Narok.	6.3%	12.5%	34.4%	46.9%	32	3.22	0.906
INNOV4	Quality of healthcare has improved in Narok County due to the advanced medical equipment, under the Managed Equipment Service.	6.3%	15.6%	43.8%	34.4%	32	3.06	0.878

From Table 4.9 above (i) Managed Equipment Service has enhanced efficiency in healthcare provision by embracing advanced technology on the medical equipment had a mean response of 3.22 with average deviation of 0.906. Most respondents agreed to a great extent in relation to this statement. (ii) Innovation is Critical factor in Managed Equipment Service to succeed in achieving better health and wellbeing for all in Narok County had a mean response of 3.47 with average deviation of 0.761. Most respondents agreed to a great extent in relation to this statement. (iii) Health PPPs can reduce the imminent bureaucracy in government healthcare procurement procedures and consequently, better health and wellbeing of all in Narok equipment had a mean response of 3.22 with average deviation of 0.906. Most respondents agreed to a great extent in relation to this statement. (iv) Quality of healthcare has improved in Narok County due to the advanced medical equipment, under the Managed Equipment Service had a mean response of 3.06 with average deviation of 0.878. Most respondents agreed to a moderate extent in relation to this statement. Overall, it can be inferred that embracing innovation by MES is Critical Success Factor.

#### 4.9.2. Qualitative Content Analysis on Innovation.

The interviews of Key Informants were transcribed and analyzed through inductive content analysis. The process first identified statements from the transcribed interview of the key informants that referred to Innovation as Critical Success Factors for health PPPs in this case Managed Equipment Service. The statements were then underlined and rewritten into a condensed manner whilst maintaining the core meaning on a spreadsheet. They were then read carefully, compared, and synthesized into short sentences and further reviewed and assembled into groups sharing the same meaning. However, this process did not produce overarching statements linked to the theme of Innovation as a Critical Success Factors for MES.

#### 4.10. Expertise

##### 4.10.1. Descriptive statistics of Expertise.

The research study sought to establish Expertise as a Critical Success Factor for MES in Narok County.

Table 4.10: Scores on Expertise as a Critical Success Factor in Managed Equipment Service

	Expertise	1= No extent	2= Little extent	3= Moderate extent	4= Great extent	N	Mean	Std. Deviation
EXPER1	Employees working under Management Equipment Service are better equipped with requisite skills and are fully aware of the health priorities of the County	9.4%	18.8%	46.9%	25.0%	32	2.88	0.907
EXPER2	Better health and wellbeing for all ages can be achieved as a result of skillful workmanship of healthcare workers under Managed Equipment Service.		6.3%	28.1%	65.6%	32	3.59	0.615
EXPER3	Patients have faith and trust on the expertise exhibited by Narok County healthcare workers in handling of the Medical Equipment under Managed Equipment service.	3.1%	12.5%	43.8%	40.6%	32	3.22	0.792
EXPER4	Continuous training and development accorded to the experts on the use of medical equipment is vital for sustainability and better healthcare delivery.		9.4%	25.0%	65.6%	32	3.56	0.669
EXPER5	Managed Equipment Service has facilitated the transfer of skills and technology to Narok County from both the contracting authority and the Private Party (medical equipment suppliers).	3.1%	18.8%	53.1%	25.0%	32	3.00	0.762

From Table 4.10 above (i) Employees working under Management Equipment Service are better equipped with requisite skills and are fully aware of the health priorities of the County had a mean response of 2.88 with average deviation of 0.907. Most respondents agreed to a moderate extent in relation to this statement. (ii) Better health and wellbeing for all ages can be achieved as a result of skillful workmanship of healthcare workers under Managed Equipment Service equipment had a mean response of 3.59 with average deviation of 0.615. Most respondents agreed to a great extent in relation to this statement. (iii) Patients have faith and trust on the expertise exhibited by Narok County healthcare workers in handling of the Medical Equipment under Managed Equipment service had a mean response of 3.22 with average deviation of 0.792. Most respondents agreed to a moderate extent in relation to this statement (iv) Continuous training and development accorded to the experts on the use of medical equipment is vital for sustainability and better healthcare delivery had a mean response of 3.56 with average deviation of 0.669. Most respondents agreed to a great extent in relation to this statement. (v) Managed Equipment Service has facilitated the transfer of skills and technology to Narok County from both the contracting authority and the Private Party (medical equipment suppliers) had a mean response of 3.00 with average deviation of 0.762. Most respondents agreed to a moderate extent in relation to this statement. Overall, it can be inferred that by having appropriate skillset among the healthcare workers compounded by requisite training is Critical for the success of Managed Equipment Services.

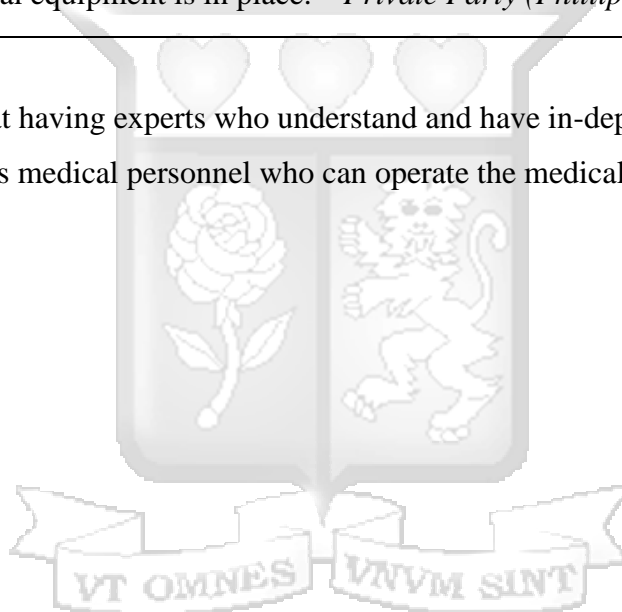
#### **4.10.2. Qualitative Content Analysis on Expertise.**

The interviews of Key Informants were transcribed and analyzed through inductive content analysis. The process first identified statements from the transcribed interview of the key informants that referred to Expertise as Critical Success Factors for health PPPs in this case Managed Equipment Service. The statements were then underlined and rewritten into a condensed manner whilst maintaining the core meaning on a spreadsheet. They were then read carefully, compared, and synthesized into short sentences and further reviewed and assembled into groups sharing the same meaning. This process produced overarching statements linked to the theme of Expertise as a Critical Success Factors for MES as shown in Table 4.11.

Table 4.11: Content Analysis Results of the statements linked to the theme of Expertise

"Government tapping into the expertise of the private parties would ensure that the right equipment in term of specification are in place and risk obsolescence avoided"- <i>PPP Advisory (IFC)</i>	<b>Expertise</b>
"Lack of manpower to operate the medical equipment"- <i>Private Party (Phillips)</i>	
"Healthcare workers disproportionately distributed across the counties and the technicians to handle the equipment unavailable"- <i>Private Party (G.E)</i>	
"Involving experts at an early stage of Health PPPs who understand PPPs in terms of management and Structure"- <i>Industry Researcher</i>	
"Government need to ensure there is sufficient skillful human resource to operate the medical equipment is in place."- <i>Private Party (Phillips)</i>	

A key observation is that having experts who understand and have in-depth knowledge and skills of health PPPs as well as medical personnel who can operate the medical equipment as critical to the success of MES.



## 4.11. Stakeholder Involvement

### 4.11.1. Descriptive statistics of Stakeholder Involvement.

The research study sought to establish Stakeholder Involvement as a Critical Success Factor for MES in Narok County.

*Table 4.12: Scores on Stakeholder Involvement as a Critical Success Factor in MES*

	<b>Stakeholder Involvement</b>	<b>1= No extent</b>	<b>2= Little extent</b>	<b>3= Moderate extent</b>	<b>4= Great extent</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
SI1	The input of stakeholders in health sector is highly sought when formulating policies on attainment of better health and wellbeing for all in Narok County.	12.5%	31.3%	34.4%	21.9%	32	2.66	0.971
SI2	Incorporation of divergent views of various stakeholders involved in Managed Equipment Service in Narok County is critical for its success.	3.1%	6.3%	34.4%	56.3%	32	3.44	0.759
SI3	Disagreement among stakeholders on implementation of Managed Equipment Service in Narok County is likely to have a negative impact on the attainment of better health and wellbeing for all.	12.5%	9.4%	18.8%	59.4%	32	3.25	1.078
SI4	The various interest of healthcare stakeholders in Narok County has been fully addressed since the inception of Managed Equipment Service.	21.9%	46.9%	25.0%	6.3%	32	2.16	0.847

From Table 4.12 above (i) The input of stakeholders in health sector is highly sought when formulating policies on attainment of better health and wellbeing for all in Narok County had a mean response of 2.66 with average deviation of 0.971. Most respondents agreed to a moderate extent in relation to this statement. (ii) Incorporation of divergent views of various stakeholders involved in Managed Equipment Service in Narok County is critical for its success had a mean response of 3.44 with average deviation of 0.759. Most respondents agreed to a great extent in relation to this statement. (iii) Disagreement among stakeholders on implementation of Managed Equipment Service in Narok County is likely to have a negative impact on the attainment of better health and wellbeing for all had a mean response of 3.25 with average deviation of 1.078. Most respondents agreed to a great extent in relation to this statement. (iv) The various interest of healthcare stakeholders in Narok County has been fully addressed since the inception of Managed Equipment Service had a mean response of 2.16 with average deviation of 0.847. Most respondents agreed to a little extent in relation to this statement. Overall, it can be inferred that by incorporating

the divergent views of the stakeholders in MES, would lead to containment of conflicts thus a Critical Success Factor for MES in Narok.

#### 4.11.2. Qualitative Content Analysis on Stakeholder Involvement.

The interviews of Key Informants were transcribed and analyzed through inductive content analysis. The process first identified statements from the transcribed interview of the key informants that referred to Stakeholder Involvement as Critical Success Factors for health PPPs in this case Managed Equipment Service. The statements were then underlined and rewritten into a condensed manner whilst maintaining the core meaning on a spreadsheet. They were then read carefully, compared, and synthesized into short sentences and further reviewed and assembled into groups sharing the same meaning. This process produced overarching statements linked to the theme of Stakeholder Involvement as a Critical Success Factors for MES as shown in Table 4.13.

*Table 4.13: Content Analysis Results of the statements linked to the theme of Stakeholder Involvement*

"One size fits all approach of releasing the medical equipment to all the counties, yet different counties have different needs and capacities of using the equipment"- <i>MoH PPP unit</i>	<b>Stakeholder Engagement</b>
"Stakeholder engagement ensuring all parties are involved in the PPP i.e. Government Agencies, MOH, the County Government, Community and Professionals"- <i>Industry Researcher</i>	
"Motive of the technical Stakeholder should not be purely financial and they should be competent"- <i>PPP Advisory (IFC)</i>	
"Stakeholder engagement was not enough, and no consultation took place"- <i>Private Party (Phillips)</i>	

A key observation is that engaging all the Stakeholders of MES can be instrumental in conducting comprehensive need analysis therefore critical to the success of MES.

#### 4.12. Correlation Analysis of the Critical Success Factors and Presentation

Spearman's analysis was performed to ascertain the strength of association between the Critical Success Factors of Managed Equipment Service. In this regard correlation significant values greater than 0.05 (2-tailed) were ( $p > 0.05$ ) considered insignificant and correlation significant value less than 0.01 (2-tailed) were ( $p < 0.01$ ) considered significant. From table 4.14, it can be inferred that at 0.05 significant level there is significant relationship between Political Goodwill and Contract Agreement and Contract Agreement with Stakeholder Involvement since ( $p < 0.05$ ).

Table 4.14: Spearman's Rho Correlation Analysis results

			Spearman's Correlations					
			Political Goodwill	Human Resource	Contract Agreement	Innovation	Expertise	Stakeholder Involvement
Spearman's rho	Political Goodwill	Correlation Coefficient	1.000	0.326	<b>.431*</b>	0.154	0.339	0.333
		Sig. (2-tailed)		0.068	0.014	0.399	0.058	0.063
		N	32	32	32	32	32	32
	Human Resource	Correlation Coefficient	0.326	1.000	0.023	-0.070	-0.034	-0.254
		Sig. (2-tailed)	0.068		0.902	0.705	0.851	0.161
		N	32	32	32	32	32	32
	Contract Agreement	Correlation Coefficient	<b>.431*</b>	0.023	1.000	0.276	0.305	<b>.404*</b>
		Sig. (2-tailed)	0.014	0.902		0.127	0.090	0.022
		N	32	32	32	32	32	32
	Innovation	Correlation Coefficient	0.154	-0.070	0.276	1.000	0.236	0.299
		Sig. (2-tailed)	0.399	0.705	0.127		0.194	0.096
		N	32	32	32	32	32	32
	Expertise	Correlation Coefficient	0.339	-0.034	0.305	0.236	1.000	0.340
		Sig. (2-tailed)	0.058	0.851	0.090	0.194		0.057
		N	32	32	32	32	32	32
	Stakeholder Involvement	Correlation Coefficient	0.333	-0.254	<b>.404*</b>	0.299	0.340	1.000
		Sig. (2-tailed)	0.063	0.161	0.022	0.096	0.057	
		N	32	32	32	32	32	32

\*. Correlation is significant at the 0.05 level (2-tailed).

Hinkle et al., (2003) provides a rule of thumb when interpreting the strength of correlation coefficient: .00 to .30 as negligible correlation, .30 to .50 as low correlation, .50 to .70 as moderate correlation, .70 to .90 as high correlation and .90 to 1.00 as very high correlation. There was significant correlation between Political Goodwill and Contract Agreement ( $p < 0.05$ ) at 5% significant level. The relationship was positive and low ( $r = .431$ ). There was significant correlation between Contract Agreement and Stakeholder Involvement ( $p < 0.05$ ) at 5% significant level. The relationship was also positive and low ( $r = .404$ ).

#### 4.13. Chapter Summary.

This Chapter began with analysis of the data gathered from the questionnaire administered to the CHMT and SCHMT. Cronbach's Alpha and Bartlett's test of sphericity were performed to establish the reliability, validity, and internal consistency of the survey instruments. Demographic statistic was conducted to have a general appreciation of data from the respondents' profile.

Descriptive Statistics was done for each Critical Success Factor under review and thereafter Qualitative Content Analysis was performed after conducting Key Informant Interviews to complement the statistical findings. The findings from qualitative content analysis corroborated the statistical findings in that Contract Agreement, Stakeholder Involvement and Political Goodwill emerged as the CSFs for Managed Equipment Service. In addition, Expertise was also considered critical by the Key Informants. Innovation and Human resources were not cited as Critical Factors by the key informants.

Spearman's rank correlation was done to establish the association of the Critical Success Factors under review. Contract Agreement, Stakeholder Involvement and Political Goodwill were found to have significant positive correlation with each other.

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

### **5.1. Introduction.**

This chapter presents discussion on research findings, conclusion, and recommendations. The study objective sought to establish the Critical Success Factors for Managed Equipment Service (MES) a type of health PPP and ascertain the correlation of the Critical Success Factors under review in Narok County. The findings of the study are discussed thereafter the limitation of the study, and possible areas of further research is presented.

### **5.2. Discussions of findings**

The aim of the study was to determine the Critical Success Factors for the Managed Equipment Service and ascertain the relationship of the Critical Success Factors in Narok County. The findings of the study were derived from primary data obtained by relying on questionnaire and Key Informants Interviews.

#### **5.2.1. Political Goodwill**

The influence of leaders at the helm of health sector plays vital role towards the success of Managed Equipment Service as depicted through the descriptive statistics. The qualitative content analysis is also in agreement that Political Goodwill is a Critical Factor for the success of Managed Equipment Service. There was significant positive low correlation between Political Goodwill and Contract Agreement ( $p < 0.05$ ) at 5% significant level. This implies that Political goodwill also plays a role when formulating contract agreements. The Key Informants cited that provision of guarantee and funding to boost investors' confidence would create a favorable operating environment needed for a success of this PPP arrangement. This statement is in tandem with the report by OECD, (2008) that investors tend to shy away from jurisdictions that have a weak political-backing because they perceive high political risk which is a deterrence in engaging in a competitive bidding process. The aspect of funding cannot be overlooked for success to be envisaged. This is by ensuring Ministry of Health and the County government are properly funded through approval of budgetary allocation on healthcare by members of parliament and the County assembly. According to Jacobson & Ok Choi,(2008), without continuous political support, there would be no expenditure approval for PPPs. It's worth noting that PPPs may be vehicle of political agenda or policy and as a result must either succeed or fail at any cost (Johnston & Gudergan, 2007). Therefore, political motives behind their initiation is worth scrutiny. This will thus reduce instances whereby policy advice is not onboarded

and the backlash and resistance from the politicians mitigated. PPP need to foster the political agenda of the political regime in place. This research finding corroborates the findings from the past research reviewed that political goodwill is indeed a Critical Success Factor for a Health PPPs and one done by International Finance Corporation, (2016) that political commitment is a prerequisite to success of PPP.

### **5.2.2. Contract Agreement**

Long term agreements between the public and private parties must bind with a detailed contract which if improperly executed, the parties involved will be affected by pre-contract overruns (Hashim et al., 2016). This explains why contracts play a vital role in managing long term PPP relationships (Roehrich et al., 2014). Descriptive statistics affirms this by showing that clarity of the contract to be playing a pivotal role for the success of MES. The qualitative content analysis is also in agreement that Contract Agreement is a Critical Factor for the success of Managed Equipment Services. The spearman's correlation analysis showed that was significant positive low correlation between Contract Agreement ( $p < 0.05$ ) at 5% significant level with both political goodwill and Stakeholder Involvement. This implies that political goodwill and involvement of stakeholders to be instrumental in contract agreement. Clarity and mutual agreement of the details of the contract by the parties involved are Critical to the Success of MES. According to Luo, (2002) contracts clarify the responsibilities of parties involved as well as the mechanism of effective risk allocation. Studies like one done by Abednego & Ogunlana, (2006) have shown that inadequate specification of requirements and improper allocation of responsibilities among the contracting parties contributed to the problems faced by the public sector. Disclosing these contents of the contract according to Bougrain,(2012) reduces uncertainty and fosters trust among partners. Building of trust and clearly defined objectives and roles are among the factors that foster commitment in a partnership and consequently a sustainable PPP (Wong, Yeoh, Chau, Yam, Cheung, et al., 2015). In comparison with past research findings, this research finding agrees with a clearly defined contract as Critical to the success of Health PPP. However, in addition to clearly defined contract, contract flexibility was also highlighted in the past literature as Critical for the success of Health PPP.

### **5.2.3. Stakeholder Involvement**

Capturing and addressing the concerns of stakeholders and putting in place an effective stakeholder management process is very important for the success of PPP (De Schepper et al., 2014; El-Gohary et al., 2006). This affirms the findings from descriptive statistics that incorporating the divergent views of the stakeholders in MES, would lead to containment of conflicts thus enabling attainment of better health and wellbeing for all in Narok. The qualitative content analysis is also in agreement that stakeholder Involvement is a Critical Factor for the success of Managed Equipment Services. Spearman's correlation analysis showed a significant positive low correlation between Stakeholder Involvement ( $p < 0.05$ ) at 5% significant level with Contract Agreement implying that the input of Stakeholders is key for a successful contract. This is in alignment with a study done by Klijn & Edelenbos, (2013) who noted that stakeholder involvement has a positive influence on the project performance. Engaging all the Stakeholders of MES and conducting comprehensive need analysis was considered critical to the success of MES. (Amadi, C.J., Carrillo, P.M. and Tuuli, 2018) explains the importance of conducting a thorough need assessment before a project is selected, and researchers like Yu et al., (2005) have concluded that stakeholders involvement has undeniable impact on the outcome of a project. This research finding conforms to the past research findings and stakeholder theory that stakeholder involvement is critical for the success of health PPPs.

### **5.2.4. Expertise**

Leveraging on the skills and expertise of the private sector to improve the quality and accessibility of public healthcare systems is among the key drivers for the use of PPPs in developed and developing nations (UNECE et al., 2012). Having experts who understand and have in-depth knowledge and skills of health PPPs as well as medical personnel who can operate the medical equipment was noted as critical for the success of Managed Equipment Services. This augments the findings from the descriptive statistics, that by having appropriate skill set compounded by requisite training was Critical for the Success of MES in Narok County. (Wibowo & Alfen, 2014) noted that experts have excellent knowledge and are fully conversant to the reasons why government are adopting PPPs. The spearman's correlation analysis between Expertise and the other CSFs was not significant. While this research finding is in harmony with the past literature which majorly highlighted the synergies as well as the efficiency in healthcare service delivery that emanate from reliance on experience and skills of the private parties, the expertise of healthcare workers whom in this study are majorly from the public sector is nonetheless required. This confirms Thadani, (2014)

argument that PPPs act as a way of augmenting health systems by enabling the exchange of skills and expertise between private and public parties.

### **5.2.5. Innovation**

While past studies reviewed have shown that innovative approaches adopted by the health PPPs in delivering health service as the critical to the success of health PPPs, the research finding somewhat contrasted with their views. In as much as descriptive statistics showed that by embracing innovation to be Critical Success Factor for MES, Innovation was neither cited by the key informant as a Critical Success Factor nor did it have a significant correlation with the other CSFs. This confirms the earlier findings of a study done by Eaton et al., (2006) that the claimed innovation associated with PPPs is largely unrealized. (Carbonara & Pellegrino, 2020) further illustrates that what constitutes as innovation in the context of PPP is far from being clear.

### **5.2.6. Human Resource**

Human resource was neither cited by the key informants as a Critical Success Factor nor did it have a significant correlation with the other CSFs. The findings from the descriptive statistics however portrays a different angle by showing that adequate and experienced human capital is Critical for the Success of MES. This research finding contrast with past literature reviewed in this study. While past studies have linked the aspect of human resource to being a critical factor to the success of health PPPs, most of them pointed out to the support accorded to the management of healthcare and capacity building of healthcare workers. However, studies like one done by Itika et al., (2011) in Tanzania rebut this notion by showing that despite the good intention by the key stakeholders to strengthen Public Private Partnership in Health Sector, strong dissatisfaction in human resource capacity amongst other areas has posed a challenge to that effect.

## **5.3. Conclusions**

This section provides conclusion of the study.

### **5.3.1. Political Goodwill**

Descriptive statistics and Key informant interviews reaffirmed that Political goodwill is a Critical Success Factor for Managed Equipment Service. This research finding is aligned to past research findings acknowledging political goodwill as a Critical Success Factor for Health Public-Private Partnerships. Fostering and having a favorable operating environment that is conducive for the

operation of health PPPs and with full backing of the political elite is a requisite for the success of Health PPP.

### **5.3.2. Contract Agreement**

Descriptive statistics and the Key informant interviews further reaffirmed that Contract Agreement is a Critical Success Factor for Managed Equipment Service. A significant positive low correlation was also noted between Contract Agreement with both Political Goodwill and Stakeholder Involvement. This research finding is aligned to past research findings acknowledging contract agreement as a Critical Success Factor for Health Public-Private Partnerships. Its therefore imperative to ensure all the stakeholders involved in this kind of health PPP arrangement are conversant with the engrained details of the contract and therefore foster certainty, build trust and commitment required for the success and sustainability of the health PPP.

### **5.3.3. Stakeholder Involvement**

Descriptive statistics and Key informant interviews reaffirmed that Stakeholder Involvement is a Critical Success Factor for Managed Equipment. A significant positive low correlation between Stakeholder Involvement and contract agreement also noted. This research finding is congruent with the stakeholder theory reviewed in this study as well as past research findings acknowledging stakeholder Involvement as a Critical Success Factor for Health Public-Private Partnerships. Its therefore important to note that by not engaging all the stakeholders and conducting a comprehensive need analysis, health PPPs are rendered susceptible to backlash from stakeholders, costly renegotiations and legal tiffs which are detrimental to their success.

### **5.3.4. Expertise**

Descriptive statistics and Key informant interviews reaffirmed that expertise is a Critical Success Factor for Managed Equipment Service. This research finding is consistent with past research findings acknowledging that expertise as a Critical Success Factor for Health Public-Private Partnerships. It is incumbent for public sector to ensure its healthcare workers are skillful and experienced to engage in healthcare PPP arrangement in addition to relying on the experience and skills of the private parties. In doing so, synergies will emanate that will propel the health PPP into achieving its goals.

### **5.3.5. Innovation**

Innovation did not turn out to be a Critical Success Factor and therefore not consistent with past research findings acknowledging that innovation as a Critical Success Factor for Health Public-Private Partnerships. Innovation in the context of PPP appears to be an ambiguous concept and hence explains why it is not a Critical Success Factor in the context of Managed Equipment Service.

### **5.3.6. Human Resource**

Overarching statements relating to human resource as a Critical Success Factor did not suffice in Key informant Interviews. This research finding was somewhat inconsistent with past research findings acknowledging that human resource as a Critical Success Factor for Health Public-Private Partnerships. Other studies have shown that dissatisfaction in human resources capacity to be detrimental to the success of Health PPPs.

## **5.4. Recommendations**

This section provides recommendations for the health Public-Private Partnership in this case Managed Equipment Services (MES) in terms of Policy and managerial implications.

### **5.4.1. Managerial Implication**

By identifying CSFs for health PPPs, the managerial implication is that project managers are best placed to meet stakeholders' expectation. By selecting and employing the most CSFs, the success rate of the project is guaranteed, and on the other hand, implementation and financial challenges that could have otherwise thrown the health systems off balance curtailed.

### **5.4.2. Policy Implication**

Health PPPs are often meant to fulfil health policy objectives such as increasing accessibility, promoting equity, reducing operational cost and the burden of government in service provision. To reap these benefits, requires sound economic policy and governance that will help PPP investors operate with confidence, in a favorable environment whereby PPP financing mechanisms are easily accessible and available. However, this fundamental policy underpinning requires a precise articulation of roles and responsibilities of the stakeholders involved, adequate contractual agreement, suitable incentives, and political commitment. Therefore, it is eminent to establish and strengthen a PPP framework to guide on procedures and rules that govern the implementation of

PPP at the County level. For an instance, instead of having ‘one size fits all’ approach on the distribution of the medical equipment, guidelines of conducting comprehensive need analysis that involves all the stakeholders should be developed. In so doing, counties will be relieved of the financial burden of paying for medical equipment which were not needed in the first place and increase the utilization rate of the ones needed.

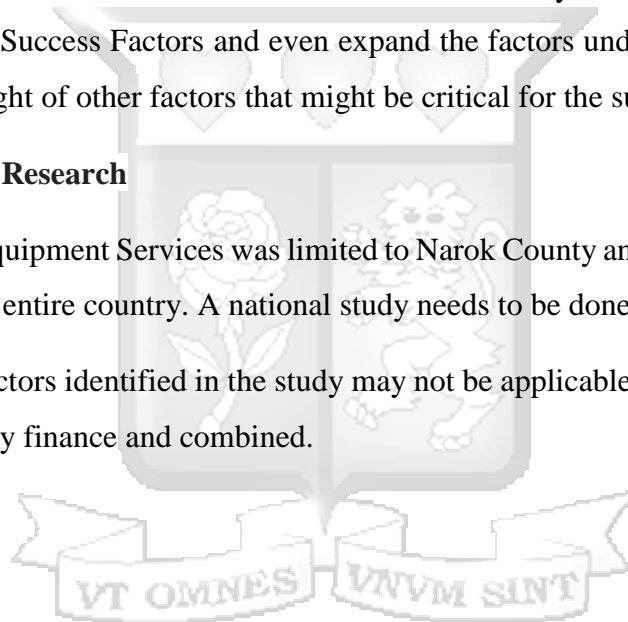
### **5.5. Suggestions for Further Research**

The scope of the study may be extended to other counties in Kenya and come up with comparative studies that establish what are the Critical Success Factors of Managed Equipment Services across different jurisdictions. While the study focused on health service type of health PPP, future researchers may focus on the other models of health PPPs i.e. Facility Finance and Combined model to establish the Critical Success Factors and even expand the factors under consideration to gain a broader and deeper insight of other factors that might be critical for the success of health PPPs.

### **5.6. Limitations of the Research**

The case of Managed Equipment Services was limited to Narok County and hence the results cannot be generalized to fit the entire country. A national study needs to be done instead.

The Critical Success Factors identified in the study may not be applicable to other models of health PPPs for instance facility finance and combined.



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## Appendix I: Introduction letter from the University

Ole Sangale Rd, Macaraka Estate,  
P.O Box 59857 00200, Nairobi, Kenya.  
Cell: +254 703 414/6/7, Twitter: @SBSKenya  
Email: info@sbs.ac.ke or visit www.sbs.strathmore.edu



Friday, 06 March 2020

TO WHOM IT MAY CONCERN

### **RE: FACILITATION OF RESEARCH – JOHN OPUDO MISEDA**

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This is to introduce John Opudo Miseda who is a Master of Science in Development Finance (MDF) student at Strathmore University Business School, admission number MDF 70699/17. As part of our MDF Program, John Miseda is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MDF course. To this effect, he would like to request for appropriate data from your organization.

John Miseda is undertaking a research paper on “Analysis of Critical Success factors for Public-Private Partnerships in Health Sector: A case of the Managed Equipment Service (MES) in Narok County.” The information obtained from your organization shall be treated confidentially and shall be used for academic purposes only.

Our MDF seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required. Yours sincerely,

A handwritten signature in blue ink, appearing to read "Veronica Muniu". The signature is fluid and cursive.

---

Veronica Muniu

Programme Manager – MBA-HCM, Strathmore University Business School

## Appendix II: Introduction Letter

Mr. John Miseda,  
Strathmore University Business school,  
Email; johnmiseda@gmail.com  
Mobile; +254 725 682 262

### **Ref: Request for Permission to Collect Research Data**

Greetings, I am a Master of Science in Development Finance Student at Strathmore University Business School. I am currently conducting a study on analysis of Critical Success factors for Public-Private Partnerships in Health Sector: A case of the Managed Equipment Service (MES) in Narok County.

Your feedback will be important to enable the various stakeholders in the Managed Equipment Service (MES) focus on the Critical Success Factors that will steer Narok County in achieving its developmental goals.

In this study you are required to complete an electronic survey which will last about ten minutes. Your participation in this study is voluntary and you are free to withdraw from it anytime. The research data collected will only be utilized for academic purposes and treated with utmost confidentiality. The findings of my research may be availed to your institution upon request.

To access electronic questionnaire please click on the link below.

<https://forms.gle/qpWdURj7okmCGsHr6>

By completing and submitting the survey you are indicating your consent to participate in the Study. Please complete and submit by 12<sup>th</sup> May 2020.

Yours faithfully,

John Miseda

### Appendix III: Questionnaire

#### PART A: GENERAL INFORMATION

1) Gender

Male

Female

2) Education Level

O- Level

Diploma

Graduate

Postgraduate

Others (Specify).....

3) Cadre of County Healthcare Management Team.

Laboratory technologist

Orthopedic

Radiologist

Nurse

Physiotherapist

Medical officer

Medical engineer

Clinical officer

Support staff

Dentist

Health records information Management officer

Others (Specify).....

4) Years of experience with health Public-Private Partnerships.

0-4 [ ] 5-9 [ ] 10-15 [ ] Over 15 [ ]

5) Number of Health Public-Private Partnerships projects directly or indirectly involved.

0-4 [ ] 5-9 [ ] 10-15 [ ]



No	Human Resource	1	2	3	4
1.	There is adequate awareness of health priorities among healthcare workers in Narok County especially sustainable Development goal 3.				
2.	Regular training of healthcare workers mandated to operate medical equipment under Managed Equipment Service (MES) will increase efficiency in healthcare delivery.				
3.	Experience in handling and use of the Medical equipment by healthcare workers is key to achieving better health and well-being of all in Narok County.				
4.	The views of healthcare employees are highly considered while making key decisions pertaining Managed Equipment Service.				
5.	Adequate human capital in Narok health facilities is critical to the success of Managed Equipment Service in achieving better health and wellbeing for all.				

**PART B: Critical Success Factors for Managed Equipment Services**

Please tick to which extent you agree with the following statements. Please indicate in the table with a tick (√) with a scale of

*4= Great extent 3= Moderate extent 2= Little extent 1= No extent*

No	Political Goodwill	1	2	3	4
1.	The County government is keen in bridging infrastructure gap, by equipping health facilities with medical equipment through Public Private Partnerships.				
2.	The County government policies on health are aligned to Sustainable development goal-3 better health and wellbeing for all ages.				
3.	Change in political regime is likely to have a negative impact on the success of Managed Equipment Service of attaining better health and wellbeing for all ages.				
4.	There is adequate government support in provision and maintenance of the medical equipment under Managed Equipment Services.				
No	Contract Agreement	1	2	3	4
5.	The objectives of Clause 1.1 of the contract in health care provisions are aimed at better health and wellbeing for all ages in Nandi County through Public Private Partnership.				
2.	Clauses on the Managed Equipment Service contract				
6.	are conspicuous and easy to interpret. The pace at which better health and wellbeing of all ages is attained depends on the influence of individuals at leadership positions in health sector				

3.	There is clear mechanism of dispute resolution in the contract agreement.				
4.	The contract is flexible enough to meet the ever-changing needs of healthcare in Narok County				
5.	There is difficulty in reaching an all-inclusive agreement among stakeholders involved in the Managed Equipment Service.				

No	Innovation	1	2	3	4
1.	Managed Equipment Service has enhanced efficiency in healthcare provision by embracing advanced technology on the medical equipment.				
2.	Innovation is Critical factor in Managed Equipment Service to succeed in achieving better health and wellbeing for all in Narok County.				
3.	Health PPPs can reduce the imminent bureaucracy in government healthcare procurement procedures and consequently, better health and well-being of all in Narok.				
4.	Quality of healthcare has improved in Narok County due to the advanced medical equipment, under the Managed Equipment Service.				

No	Stakeholder Involvement	1	2	3	4
1.	The input of stakeholders in health sector is highly sought when formulating policies on attainment of better health and wellbeing for all in Narok County.				

No	Expertise	1	2	3	4
1.	Employees working under Management Equipment Service are better equipped with requisite skills and are fully aware of the health priorities of the County				
2.	Better health and wellbeing for all ages can be achieved as a result of skillful workmanship of healthcare workers under Managed Equipment Service.				
3.	Patients have faith and trust on the expertise exhibited by Narok County healthcare workers in handling of the Medical Equipment under Managed Equipment service.				
4.	Continuous training and development accorded to the experts on the use of medical equipment is vital for sustainability and better healthcare delivery.				
5	Managed Equipment Service has facilitated the transfer of skills and technology to Narok County from both the contracting authority and the Private Party (medical equipment suppliers).				
2.	Incorporation of divergent views of various stakeholders involved in Managed Equipment Service in Narok County is critical for its success.				
3.	Disagreement among stakeholders on implementation of Managed Equipment Service in Narok County is likely to have a negative impact on the attainment of better health and wellbeing for all.				
4.	The various interest of healthcare stakeholders in Narok County has been fully addressed since the inception of Managed Equipment Service.				

*Thank you for Your Time*



## **Appendix IV: Interview Guides for Key Informants.**

### **Broad areas on which the interview shall be based. – Health PPPs researchers.**

1. What role has research played in the development of health PPPs?
2. Do the findings of your research on health PPPs contribute to policy reforms?
3. What factors contribute to successful health PPPs based on research you have conducted?
4. Is the government keen on its developmental goal such as achieving better health and wellbeing for all ages through Health PPPs?
5. Which areas of health PPPs need further research?
6. What are the challenges facing health PPPs based on the research you have conducted?
7. Has the coverage on research of critical success factors in health PPPs enough?

### **Broad areas on which the interview shall be based. – Narok County Executive Committee Health and Sanitation.**

1. Which legislations have been passed in relation to PPPs in health sector?
2. What are the key priorities of Healthcare department at the County in its quest to attain Sustainable Development Goal-3?
3. What support has the County offered in support of Managed Equipment Service?
4. Which are the critical success factors for MES to succeed in attaining Sustainable Development Goal-3?
5. What challenges have you encountered in relation to MES and what measure have been put in place to address them?

### **Broad areas on which the interview shall be based. – Private Party.**

1. What was your motivation to become a stakeholder in Managed Equipment Service?
2. What challenges have you incurred since the inception of Managed Equipment Service?

3. Have you achieved your objectives under this partnership?
4. What do you consider important in sustaining your relationship with other stakeholders involved in MES?
5. What factors do you consider critical for Managed Equipment Service to succeed in attaining SDG-3?

**Broad areas on which the interview shall be based. – PPPs Advisory.**

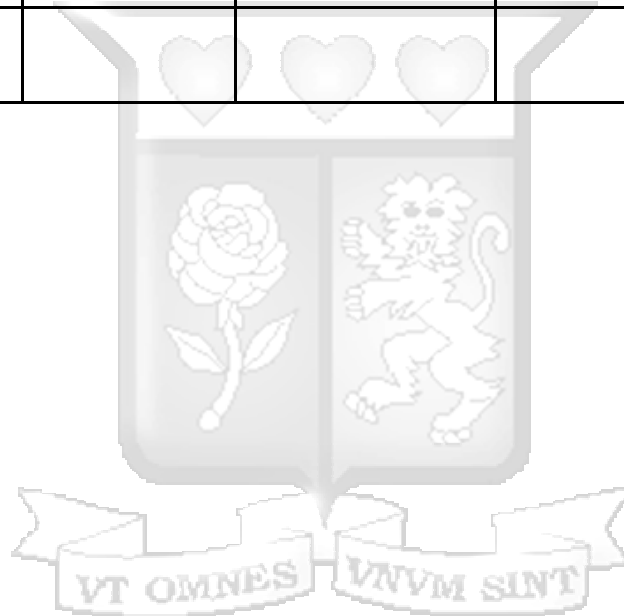
1. Which factors do you consider critical for Managed Equipment Service to be successful in achieving SDG-3?
2. Is Kenya ready to embrace PPPs in its health sector?
3. Do you consider the PPP market in Kenya fully developed to handle challenges in health industry?
4. How do you gauge a successful PPP in the health sector?
5. How suitable are health PPPs vis a vis traditional approach to procuring health services?

**Broad areas on which the interview shall be based. – Ministry of Health (PPP Unit)**

1. Which critical success factors do you consider for Managed Equipment Service to be successful?
2. What mechanism has the ministry put in place to ensure success of Managed Equipment Service at the County Government in achieving SDG-3?
3. What objectives does the ministry seek to achieve under this partnership?
4. What kind of challenges and success have been registered so far under Managed Equipment Service?
5. How can you describe your relationship with other stakeholders in Managed Equipment Service?
6. How does the undeveloped nature of PPPs market a deterrence to attainment of UHC?

### Appendix V: Work Plan

2019-2020	January	February	March	April
Formulation of the problem.				
Proposal writing				
Data collection				
Data analysis				
Project Writing				



### Appendix VI: Budget in Kenyan Shillings

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Printing	10,000
Photocopying	10,000
Travelling	20 000
Airtime	10,000
Research Assistant.	20,000
Miscellaneous	10,000
Publication Fee	20,000
<b>Total</b>	<b>100,000</b>

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