

# Influence of Devolved Governance on Performance of Health Sector in Kenya: A Case of Machakos County

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**Abstract:** This study sought to establish the influence of devolved governance on the performance of the health sector in Kenya, Machakos County was used as the case study. The study adopted the descriptive survey research design. The target population was 525 health care providers from referral and sub-county hospitals of Machakos County. Stratified sampling method was used to sample 158 respondents (30%). Primary data was collected using questionnaires. The collected data was analyzed using descriptive and inferential statistics. The analyzed data was presented in tables. The findings of this study have shown that devolved policy and regulatory framework positively contributed to health sector performance. This study concludes that devolved procurement has a positive and significant contribution to health sector performance. The more devolved the procurement process the better the performance of health sector in Machakos County. Devolved leadership has a positive contribution to health sector performance in the county. However, this contribution is not statistically significant hence could have occurred by chance. Devolved resources have a positive and significant contribution to health sector performance. The more devolved the resources are the better the performance of health sector in Machakos County. Devolved policy and regulatory framework have a positive and significant contribution to health sector performance in Machakos County. This implies that the more devolved policies and regulatory frameworks regarding health are, the better the performance of health sector in Machakos County. This study recommends that the central government and Machakos County government should ensure that the procurement process in the health sector is fully devolved to improve performance. The devolved leadership in Machakos County should actively participate in health sector issues to ensure that they impact its performance. The central government should ensure that resources meant for Machakos County government is availed efficiently as this has been revealed to influence health sector performance. Machakos County government should utilize devolved resources to improve health sector performance. The policy makers and regulators in the health sector should ensure that they have adequate county reach as the more devolved they are the better the health sector performance.

**Keywords:** county, devolved, government, resources, policy, health, procurement, leadership, regulatory framework.

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## 1. INTRODUCTION

### Background:

Decentralization of health system structure and management has been and continues to be a key issue for many countries in the achievement of health for all, and development of primary health care. According to WHO (2000), decentralization can be defined in general terms as the transfer of authority, or dispersal of power, in public planning, management and decision making from national to sub national levels. "Decentralization is therefore, not only an important theme in health management but also a confused one", (Luoma et al, 2010). According to El-Saharty (2009), globally, there has been a trend in the devolution of authority in healthcare. One can say that authority that was often sitting with one central

Ministry or Department of Health has devolved over time. Ethiopia for example has moved from centrally-organized authority to a situation where block grants are redistributed from regional governments to districts. The districts, in turn, can set their own priorities and are free to further allocate this budget to health facilities, (El-Saharty, 2009).

Since independence in 1963, centralization has been at the core of Kenyan governance, with power concentrated in the capital. As a result, Kenya has been marked by spatial inequalities during this period of time. It is against this backdrop that healthcare devolution is taking place, (MOH, 2013). Discussion about devolving powers to the regional level is a big debate in Kenya today. In general, it is believed that local governments are more transparent than national governments. This is due to the proximity of local governments to their communities, (English et al., 2011). One of the aims of devolution is to create more intense community involvement in order to adjust service delivery models to the communities' specific needs. As such, the local government must have the authority to involve communities. Indeed, there is a great deal of skepticism about it. Despite this skepticism, most counties will use devolution as the latest panacea for the woes of their health care systems.

#### **Statement of the Problem:**

Devolved government invariably involves a shift of power and control, and thus challenges accountability and performance management frameworks built around more traditional hierarchical authority structures. According to KPMG (2013), a key challenge is to find new ways to support accountability, performance and public confidence while allowing for innovation and locally designed solutions to meet citizens' needs. In the devolved government, the Kenya Health Policy 2012 – 2030 provides guidance to the health sector in terms of identifying and outlining the requisite activities in achieving the government's health goals. The policy is aligned to Kenya's Vision 2030 (Kenya's national development agenda), the Constitution of Kenya and global health commitments such as the Millennium Development Goals, (MDGs). Kenya devolved its healthcare system since the time the county government came in power in March 4th 2013, however, very little has been done to establish the implications in Kenya, (Atieno, Nancy & Spitzer, 2014).

Health workforce unrests have been witnessed since the advent of county governance; affecting service delivery thus posing health risks to thousands of county residents and scaring away potential investors. Both the national and county government together with the various development stakeholders have paid little attention to such a situation despite the fact that if it remains unchecked could jeopardize service delivery, (Mwatsuma, Mwamuye, & Nyamu, 2014). Further, the case of stock outs on essential drugs has promoted health risks in the hospitals as well as affecting the economic status of households as they seek drugs from private pharmacies. This has a negative social effect especially to the poor who depend on subsidized government supplies. Poor treatment for emergencies as well as unserviced equipment, vehicles and facilities pose a challenge in the effective delivery of health services in the hospitals in Kenya. The problem compounded by underfunding and poor control of resources, embezzlement and pilferage at the hospitals have significantly influenced service delivery in public health sector Kenya, (KPMG, 2013).

Dealing with rapid, complex, and often discontinuous change requires leadership. Ministry of Health and Medical services (2010), suggests that for county governments to have successful health care system leaders must understand the nature and implications of change, have the ability to develop effective strategies that account for change, and the will as well as the ability to actively manage the momentum of the devolution. It is against this backdrop that this study was conceived so as to fill the knowledge gap.

#### **Objectives of the Study:**

The general objective of the study was to establish the influence of devolved governance on the performance of health sector in Kenya, a case of public health sector in Machakos County.

The specific objectives of the study included:

1. To establish the influence of devolved procurement on the performance of health sector in Machakos County;
2. To determine the influence of devolved organizational leadership on performance of health sector in Machakos County;
3. To evaluate the effect of devolved resources on the performance of health sector in Machakos County
4. To establish the effect of devolved regulatory frameworks on the performance of health sector in Machakos County

**Research Questions:**

1. How does devolved procurement influence the performance of health sector in Machakos County?
2. What is the effect of devolved organizational leadership on the performance of health sector Machakos County?
3. To what extent do devolved resources influence the performance of health sector Machakos County?
4. To what extent does devolved regulatory framework influence performance of health sector Machakos County?

**2. LITERATURE REVIEW****Devolved Procurement and the Performance of the Health Sector:**

According to C.I.P.S (2010), there are some of the potential sources of risks in the in the supply chain: sources of risks from buyers; Clarity of definition of requirements, Presentation and approach to market, internal relationships and barriers to use particular suppliers. Other Sources of risks are from Suppliers, Production process capacity & supply chains, Competing demands from different buyers, Commercial and financial capability. Risks from existing buyer supplier Relationships; includes Contractual allocation of risks, Cultural fit and associated skill sets on both sides to manage the relationship Performance management arrangements. According to the findings of Bloom (2011)), there are five different sources of supply chain risks. These are based on, technological risks, political risks, market risks, turbulence risks, financial risks and organizational and societal risks. These risks affect the performance of the supply to varied levels depending with the existing circumstances.

Development of cross-functional teams aligns organizations with process oriented structure, which is much needed to realize a smooth flow of resources in a supply chain. As suggested by Bennett, Corluka, Doherty, and Tangcharoensathien (2012), such teams promote improved supply chain effectiveness. They minimize or eliminate functional and departmental boundaries and overcome the drawbacks of specialization, which according to Pavignani and Colombo (2009), can distribute the knowledge of all value adding activities such that no one, including upper level managers, has complete control over the process. Such teams helped in the formation of modern supply chains by promoting greater integration of organizations with their suppliers and customers.

A tenet of the Constitution of Kenya, 2010 (COK, 2010), is the right to healthcare for every individual. To this end, the government is working towards achieving universal health coverage (UHC) for its citizens. As the government implements approaches to increase demand, it will be imperative to ensure that the supply side is able to adequately respond. According to the Kenya Medical Supplies Agency (KEMSA) procurement Review Report (2008), there was no comprehensive consolidated annual procurement plan prepared by procurement unit for some tenders and contracts. Concerns were also raised over the inadequate pre-procurement planning that at times contributed to non-payment of suppliers. Clear procurement documentation, including objectives, scope, deliverables, timing, progress, and payment reporting must be established. All these are risks elements which will affect the performance of the supply chain function within the organization and therefore the need for a risk management strategy.

**Devolved Organizational Leadership and the Performance of the Health Sector:**

In China, the government's capacity to shape the sector is further undermined by the role of the Communist Party. Hospital managers are often prominent party officials, or are closely connected to those who are prominent, which affords them opportunities to shape government priorities. When the government adopts measures controlling hospitals' behaviour in response to popular angst, the managers' party affiliations help to dilute their content and implementation, (Chen 2011).

The weakening of government control over providers has influenced the performance of the health sector. Another effect resulted from the gradual demise of health insurance during the 1980s. While previous health insurance programmes were a mechanism for mobilizing resources from the population rather than modern insurance pools with active purchasing functions, they did provide some supervision and control over providers. Once they had disappeared amidst transition to market economy, virtually no mechanisms remained to monitor providers and hold them accountable, (Tam, 2008 & 2010). District/ Level four hospitals in low-income African settings often have between 60 and 300 inpatient beds and similar numbers of total staff, (KPMG, 2013). These numbers, although small by developed-country hospital standards,

are typically organized as multiple service delivery units. These reflect the nature of care (outpatient and inpatient) and service type (for example, adult surgical or paediatric wards). Traditionally, the focus in low-income settings among those expected to lead such units has been on technical competence, yet it is increasingly recognized that leadership, supervision, information dissemination and communication are major mediators and moderators of the quality and effectiveness of health care.

O'Neil (2008), accords that within the hospital setting, the senior management is made up of a hospital management team that holds administrative power. This comprises persons in charge of administration, nursing, pharmacy and allied health services and is typically led by the medical superintendent. Those in charge of different clinical service units or departments are invariably clinicians and nurses who operate without any specific departmental administrators. Bennett (2012) allude that they are expected to plan and advocate for resources, although they are unlikely to have direct control over a specific departmental budget. Such individuals also supervise teams of front-line workers, either medical or nursing, and contribute directly to service delivery.

Fulop and Day (2010), allude that the lead clinician may have a higher degree in an appropriate medical specialty or, especially in smaller rural hospitals, may still have a general medical qualification. Specialist doctors in leadership roles may have as few as 5 years' total work experience (including their 3 years training), although some will have many more. General medical practitioners in smaller hospitals may have only 1 year of work experience before taking charge of a department. The nurses leading departments tend to have more work experience although very few at this level have any higher training in a specific clinical specialty (for example paediatric or surgical nursing).

Previous work in Kenyan public hospitals has revealed leadership gaps and poor communication between senior administration and lower cadres as an impediment to achieving better practice, (Birken & Weiner, 2012). Management training for senior health professionals has been recognized as a priority and is now being provided. Clinical leaders in both settings often have a significant professional identity with considerable autonomy within their work and organizational setting. Such autonomy increasingly results in calls for greater accountability, with leaders having to accept greater levels of responsibility for management. Prompting clinicians to accept management roles is the fear of losing authority and of being treated as simply technicians. Arguably, this results in the emergence of the hybrid clinical manager across many settings. This is likely to be particularly true as Kenya undergoes both major administrative changes resulting from greater devolution, (Atieno, 2014), and because, like other low-income settings, major changes are needed to improve service delivery now and to promote continuous organizational learning and improvement. To achieve this, better support for health professionals who are also leaders is required in addition to that focusing on the role played by senior managers in Kenya. Such training should emphasize the development of personal attributes that facilitate this role and may increase job satisfaction and performance

#### **Devolved Resources and the Performance of the Health Sector:**

A study by Muula (2007), showed that shortages of essential drugs including vital anti-malarials or antibiotics pervade all levels of care as had been documented previously in Malawi, even in the vicinity of the capital. This excludes anti-retroviral drugs, which followed, up until this study, a different and independent mode of procurement and delivery. The reasons for inadequacies in drug procurement, storage and delivery were manifold. They documented deficiencies of finances, physical infrastructure (warehousing), staffing and drug quantification. Kutzin, Cashin and Jakab (2010), assert that possibly a structural challenge to reform is that procurement process embedded in central government structures. This means that it is highly dependent on direct funding from the Ministry of Finance and has a lack of discretion over recruitment of staff (including their qualification) and inadequate means of responsibility to perform duties independent of central government.

Vaillancourt (2009), accords that the devolution of purchasing power to Counties is providing more discretion to districts but this measure will remain unsuccessful until the procurement process has the means to manage drugs adequately at national level, including quantification of need and keeping an adequate buffer stock. Many donors and others have therefore called for procurement process to be changed into a (semi-) independent trust. Discussions regarding the institutional change are under way, but many complain about the long process and express doubt that procurement process can ever become independent of political interference, (Pavignani & Colombo, 2009).

Kenya's most recent human resources for health HRH strategic plan (National Human Resources for Health Strategic Plan, 2009 – 2012) was formulated prior to devolution. It therefore logically follows that a revised HRH policy that is aligned to the new form of government should be implemented, this was the participants' first proposal on policy. One of the unintended consequences of the devolution of healthcare workers, as documented in the KPMG Devolution report is that "career structures can suffer, "that is, smaller administrative areas with fewer layers can reduce opportunities for talented people to progress up the career ladder. Support educational institutions, including Health Education Centres, and other entities in their efforts to create or update training, providing targeted continuing education opportunities for existing health professionals to support health care delivery efforts.

Patrick (2013), asserts that the county government needs to shift the emphasis of health care to the people themselves and their needs, reinforcing and strengthening their own capacity to shape their lives. Health care needs to be delivered close to the people; thus, should rely on maximum use of both lay and professional health care practitioners and includes the following eight essential components: education for the identification and prevention, control of prevailing health challenges, proper food supplies and nutrition; adequate supply of safe water and basic sanitation, maternal and child care, including family planning, immunization against the major infectious diseases, prevention and control of locally endemic diseases, appropriate treatment of common diseases using appropriate technology, promotion of mental, emotional and spiritual health, provision of essential drugs. Harmonization of available resources to ensure that the limited resources available are utilized optimally. Human resources development is an important part of rebuilding the health sector post-conflict but has received relatively little attention in the literature and may be overlooked by decision-makers and donors, (O'Hanlon & Budosan, 2011).

#### **Devolved Regulatory Framework and the Performance of the Health Sector:**

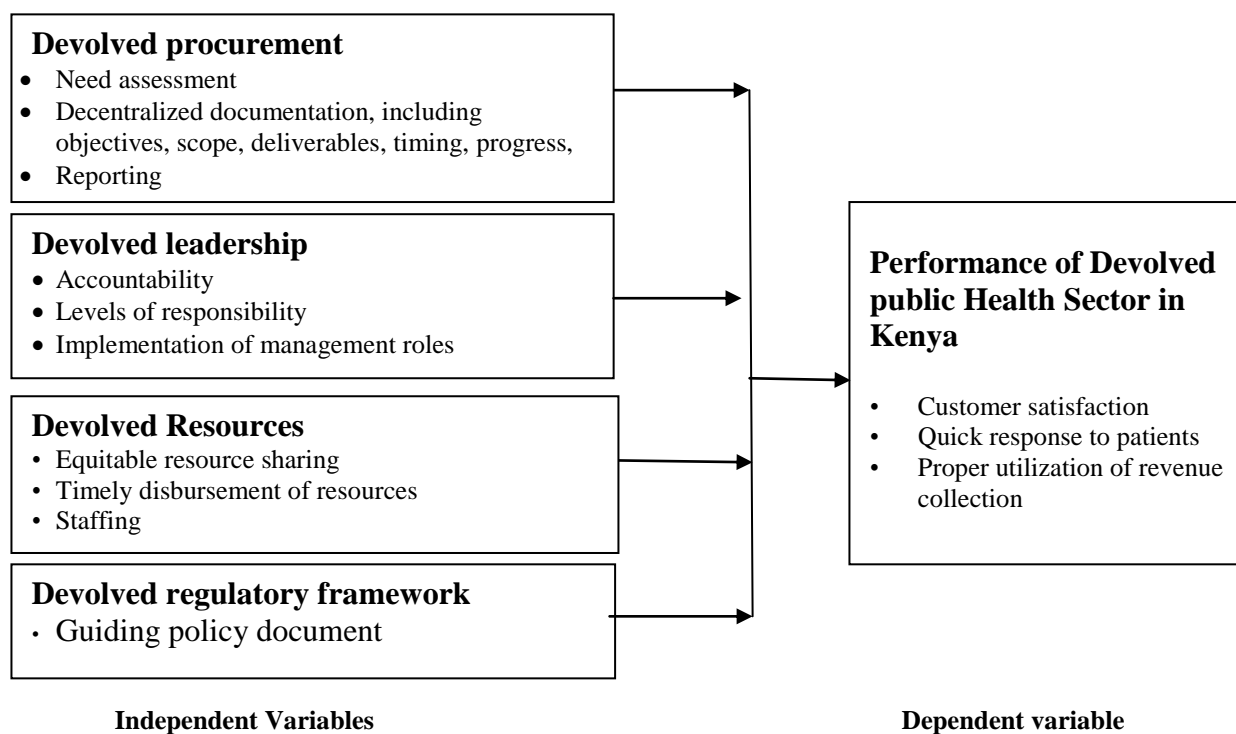
Globally, providers increasingly realize that delivering top quality care gives them the competitive edge they need in order to safeguard their growth – or more simply, their existence, (Bolton & Haulihan, 2007). Operational costs have to be brought down, while the safety, effectiveness, patient-centeredness, and timeliness of care have to be improved. Kenyan providers are no different. Indeed, the Joint Commission International (JCI) which provides healthcare accreditation to hospitals globally, and is a mark of quality, has made it to the Kenyan market. As is observed in the Ghanaian devolution process, different role players impact on the (performance of) the local health systems. Since there is no overarching strategy, policies, or regulations, many stakeholders have a limited understanding of government's plans and process objectives in terms of decentralization, deconcentration and devolution of responsibilities to sub-national levels, (Bennett, 2012).

Kenya's evolving health policy context has much in common with that in many Anglophone African countries. The late 1980's saw the adoption of measures inspired mainly by the New Public Management rhetoric, (Noorein & Pam, 2010), such as the introduction of performance management and advocacy for the "empowerment" of managers. Mbua and Ole (2013), assert that devolving responsibilities does not only impact on those organizations or regions where responsibilities are devolved to, it also impacts on the organization – typically a Ministry of Health – that is devolving its authority. Good governance should clearly spell out what (policies) the Ministry of Health would still be responsible for in a devolved health system. Examples of these are quality regulations and education and training of doctors. The role of a Ministry is therefore likely to be one of 'stewardship' and 'guidance' instead of 'own and control' in a devolved system.

Chuma, Okungu, and Molyneux (2010), posit that the Kenya Health Policy 2012 - 2013 is the guiding policy document for the health sector. It outlines the orientations and objectives that are imperative in attaining the government's health goal of "Better Health in a Responsive Manner." In addition to providing the health sector strategy, Kenya Health Policy 2012 – 2030 also provides an implementation framework. Implementation will be through five-year medium-term strategic plans and will employ a multi-sectorial approach at both government levels and involve clients/consumers, non-state actors and state actors – including semi-autonomous government agencies.

#### **Conceptual Framework:**

In this context, independent variables include; devolved procurement, devolved leadership, devolved policy and regulatory framework, and devolved resources. These are presumed to affect performance of devolved health sector in Kenya.



### 3. RESEARCH METHOD

#### Research Methods and Design:

This study used a descriptive survey research design. This research design is appropriate for a study concerned with finding out the effects of devolved governance on the performance of the health sector. A descriptive study is one in which information is collected without changing the environment. Descriptive studies are usually the best methods for collecting information that demonstrate relationships and describe the world as it is. Silverman (2011) suggests that descriptive studies can answer questions such as “what is” or “what was” as well as “why” or “how” questions. According to Sekaran and Bougie (2010), descriptive survey is a method that studies large population (universe) by selecting and studying the samples from the population to discover relationships.

#### Population and Sample:

The study was undertaken in level four and five hospitals in Machakos County. The study engaged key informants in the study areas, composing of healthcare service providers. The target accessible was 525 employees in three- level four hospitals and one level five hospital in Machakos County.

#### Data Collection, Processing and Analysis:

The instruments for primary data collection were questionnaires which were administered by the researcher with help from local field enumerators to enable coverage of the sampled respondents.

The questionnaires were simply structured for ease of administration and also to obtain the necessary information for the study with ease. The researcher sought authority from the relevant regulatory in order to be in tandem with ethical considerations of research. A general section, administered to the respondents, covered socio-economic status, demographics, and views about key public services. Further sections covered views and experience about several public services. The section on health services asked about access to this service, and about self-reported knowledge of how to complain about the service. A total of 158 questionnaires were distributed to the sampled group to partake in the study. Follow-up was made by the researcher to monitor the progress of response. All questionnaires were collected after three weeks' time. The collected data was analyzed using descriptive and inferential statistics. Descriptive statistics which included frequencies and percentages were used to describe data while multiple linear regression analysis was used to make inferences from the data. The following multiple regression analysis model was used to analyze data;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where,

Y= Performance of Devolved public Health Sector

X<sub>1</sub>: Devolved procurement

X<sub>2</sub>: Devolved leadership

X<sub>3</sub>: Devolved Resources

X<sub>4</sub>: Devolved regulatory framework

$\beta_0$  is the constant or intercept while  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$  are the corresponding coefficients for the respective independent variables while  $\varepsilon$  is the error term. Data analysis results were presented in tables.

#### 4. RESULTS AND DISCUSSION

##### Devolved Procurement:

The respondents were asked to indicate their level of agreement or disagreement with the statement that devolution of the procurement process has enhanced access to drugs, equipment and facilities at the hospitals. They were to use a scale of 1-5 where 1 is strongly disagree, 2 is disagree, 3 is neutral, 4 is agree and 5 is strongly agree. The results show that 41.2% of the respondents indicated that they agree with the statement that devolution of the procurement process has enhanced access to drugs, equipment and facilities at the hospitals while 29.4% indicated that they were neutral on the statement. The results also show that 11.8% of the respondents indicated that they strongly agree with the statement while 17.6% of the respondents indicated that they disagree with the statement. The results are shown in table 1.

**Table 1: Devolution of the Procurement Process enhanced access to Drugs, Equipment and Facilities**

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	27	17.6	17.6	17.6
Neutral	45	29.4	29.4	47.1
Agree	63	41.2	41.2	88.2
Strongly agree	18	11.8	11.8	100.0
Total	153	100.0	100.0	

The respondents were asked to indicate their level of agreement or disagreement with the statement that devolved procurement process has reduced the instances of corruption at the hospitals. They were to use a scale of 1-5 where 1 is strongly disagree, 2 is disagree, 3 is neutral, 4 is agree and 5 is strongly agree. The results show that 41.2% of the respondents indicated that they agreed with the statement while 23.5% of the respondents indicated that they were neutral on the statement. The results also show that 17.6% of the respondents indicated that they strongly agree with the statement while 5.9% and 11.8% of the respondents indicated that they disagree and strongly disagree respectively. The results are shown in table 2.

**Table 2: Devolved Procurement Process has reduced the Instances of Corruption**

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	18	11.8	11.8	11.8
Disagree	9	5.9	5.9	17.6
Neutral	36	23.5	23.5	41.2
Agree	63	41.2	41.2	82.4
Strongly agree	27	17.6	17.6	100.0
Total	153	100.0	100.0	

The respondents were asked to indicate their level of agreement or disagreement with the statement that devolution has enabled public scrutiny of the procurement process at the hospitals. They were to use a scale of 1-5 where 1 is strongly disagree, 2 is disagree, 3 is neutral, 4 is agree and 5 is strongly agree. The results show that 41.2% of the respondents agreed with the statement that devolution has enabled public scrutiny of the procurement process at the hospitals. The results also show that 23.5% of the respondents indicated that they were neutral on the statement while another 23.5% indicated that they strongly agree with the statement. Only 11.8% of the respondents indicated that they disagree with the statement. Table 3 shows the results.

**Table 3: Devolution has enabled public scrutiny of the procurement process at the hospitals**

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	18	11.8	11.8	11.8
Neutral	36	23.5	23.5	35.3
Agree	63	41.2	41.2	76.5
Strongly agree	36	23.5	23.5	100.0
Total	153	100.0	100.0	

#### Devolved Leadership:

The respondents were asked to indicate the extent that the new management under devolution has enabled quicker decision making by the hospital leaders. They were to use a five point likert scale of 1-5 where 1 is very little, 2 is little, 3 is moderate, 4 is much and 5 is very much. The results show that 35.3% of the respondents indicated that the new management under devolution has enabled quicker decision making by the hospital leaders very much while another 35.3% of the respondents indicated to a moderate extent. The results also show that 17.6% of the respondents indicated much while the respondents who indicated very little and little were 5.9% each. Table 4 shows the findings.

**Table 4: New Management under Devolution has enabled Quicker Decision Making**

	Frequency	Percent	Valid Percent	Cumulative Percent
Very little	9	5.9	5.9	5.9
Little	9	5.9	5.9	11.8
Moderate	54	35.3	35.3	47.1
Much	27	17.6	17.6	64.7
Very much	54	35.3	35.3	100.0
Total	153	100.0	100.0	

The respondents were asked to indicate the influence of devolved leadership on hospital development planning. They were to use a five point likert scale of 1-5 where 1 is very low, 2 is low, 3 is average, 4 is high and 5 is very high. The results show that the majority of the respondents (52.9%) indicated that influence of devolved leadership on hospital development planning is high while 29.4% of the respondents indicated average. Only 5.9% of the respondents indicated very high while 11.8% indicated low. Table 5 shows the results.

**Table 5: Influence of Devolved Leadership on Hospital Development Planning**

	Frequency	Percent	Valid Percent	Cumulative Percent
Low	18	11.8	11.8	11.8
Average	45	29.4	29.4	41.2
High	81	52.9	52.9	94.1
Very high	9	5.9	5.9	100.0
Total	153	100.0	100.0	



The respondents were asked to rate the public accessibility to leadership under devolution in the hospitals. They were to use a five point likert scale of 1-5 where 1 is very low, 2 is low, 3 is average, 4 is high and 5 is very high. The results show that 41.2% of the respondents indicated that their rating for public accessibility to leadership under devolution in the hospitals is high while 11.8% indicated that their rating is very high. The results also show that 17.6% of the respondents indicated that their rating is average while 11.8% indicated low. The results also show that 17.6% indicated their rating as very low. These findings are presented in table 6.

**Table 6: Rating of the public accessibility to leadership under devolution in the hospitals**

	Frequency	Percent	Valid Percent	Cumulative Percent
Very low	27	17.6	17.6	17.6
Low	18	11.8	11.8	29.4
Average	27	17.6	17.6	47.1
High	63	41.2	41.2	88.2
Very high	18	11.8	11.8	100.0
Total	153	100.0	100.0	

#### Devolved Resources:

The respondents were asked to rate the access to medical drugs and facilities at the hospitals. The respondents were to use a scale of 1-4 where 1 is very insufficient, 2 is fairly sufficient, 3 is sufficient and 4 is very sufficient. The findings show that the majority of the respondents indicated that access to medical drugs and facilities at the hospitals is fairly sufficient (58.8%). The results show that respondents who indicated that access to medical drugs and facilities at the hospitals is sufficient and very sufficient were 11.8% each. The results also show that 17.6% of the respondents indicated that their rating of access to medical drugs and facilities at the hospitals is very insufficient. Table 7 shows these findings.

**Table 7: Rating of the access to medical drugs and facilities at the hospitals**

	Frequency	Percent	Valid Percent	Cumulative Percent
Very insufficient	27	17.6	17.6	17.6
Fairly sufficient	90	58.8	58.8	76.5
Sufficient	18	11.8	11.8	88.2
Very sufficient	18	11.8	11.8	100.0
Total	153	100.0	100.0	

The respondents were asked to indicate whether devolved governance enabled the satisfaction of the human resource at the public hospitals. The results show that the majority of the respondents (76.5%) indicated yes as compared to 23.5% of the respondents who indicated no. The results are presented in 8.

**Table 8: Devolved governance enabled the satisfaction of the human resource at the public hospitals**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	36	23.5	23.5	23.5
No	117	76.5	76.5	100.0
Total	153	100.0	100.0	

The respondents were asked to indicate the influence of devolved resources on rehabilitation and improvement of the public hospitals. The respondents were to use a five point likert scale of 1-5 where 1 is very low, 2 is low, 3 is average, 4 is high and 5 is very high. The results show that 41.2% of the respondents indicated that the influence of devolved resources on rehabilitation and improvement of the public hospitals is average while the respondents who indicated low and very low were 29.4% each. These findings are shown in table 9.

**Table 9: Influence of devolved resources on rehabilitation and improvement of the public hospitals**

	Frequency	Percent	Valid Percent	Cumulative Percent
Very low	45	29.4	29.4	29.4
Low	45	29.4	29.4	58.8
Average	63	41.2	41.2	100.0
Total	153	100.0	100.0	

The respondents were asked to indicate whether devolution of resources has enabled effective allocation of adequate facilities at the hospitals. The findings of the study show that the majority of the respondents (82.4%) indicated no while 17.6% of the respondents indicated yes. These findings are shown in table 10.

**Table 10: Devolution of resources enabled effective allocation of adequate facilities at the hospitals**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	27	17.6	17.6	17.6
No	126	82.4	82.4	100.0
Total	153	100.0	100.0	

The respondents were asked to indicate the extent to which capacity building of hospital managers influence the health sector performance. The respondents were to use a five point likert scale of 1-5 where 1 is very little, 2 is little, 3 is moderate extent, 4 is much and very much. The findings show that 47.1% of the respondents indicated that capacity building of hospital managers influence the health sector performance much while 11.8% indicated very much. The results also show that 29.4% of the respondents indicated moderate while the respondents who indicated very little and little were 5.9% each. These findings are shown in table 11.

**Table 11: Extent capacity building of hospital managers influences the health sector performance**

	Frequency	Percent	Valid Percent	Cumulative Percent
Very little	9	5.9	5.9	5.9
Little	9	5.9	5.9	11.8
Moderate	45	29.4	29.4	41.2
Much	72	47.1	47.1	88.2
Very much	18	11.8	11.8	100.0
Total	153	100.0	100.0	

#### **Devolved Policy and Regulatory Framework:**

The respondents were asked to rate the National Health Policies in enabling patients' satisfaction on services delivered at the hospital. The respondents were to use a five point likert scale of 1-5 where 1 is very low, 2 is low, 3 is average, 4 is high and 5 is very high. The findings show that 47.1% of the respondents rated National Health Policies in enabling patients' satisfaction on services delivered at the hospital as average while 23.5% of the respondents indicated very low. The results also show that 17.6% of the respondents rated National Health Policies in enabling patients' satisfaction on services delivered at the hospital as high while 11.8% rated it as low. These findings are shown in table 12.

**Table 12: Rating of the National Health Policies in enabling Patients' Satisfaction**

	Frequency	Percent	Valid Percent	Cumulative Percent
Very low	36	23.5	23.5	23.5
Low	18	11.8	11.8	35.3
Average	72	47.1	47.1	82.4
High	27	17.6	17.6	100.0
Total	153	100.0	100.0	

The respondents were asked to indicate whether there are strategic measures undertaken by the level four hospitals to effectively implement the health sector policies. The results show that the majority of the respondents (76.5%) indicated yes as compared to 23.5% of the respondents who indicated no. These results are shown in table 13.

**Table 13: There are strategic measures undertaken to effectively implement the health sector policies**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	117	76.5	76.5	76.5
No	36	23.5	23.5	100.0
Total	153	100.0	100.0	

The respondents were asked to indicate whether they have ever been involved during the formulation of policies and regulations in the level four hospitals. The results show that the majority of the respondents (75.2%) indicated yes as compared to 24.8% of the respondents who indicated no. These results are shown in table 14.

**Table 14: Have ever been involved during the formulation of policies and regulations**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	115	75.2	75.2	75.2
No	38	24.8	24.8	100.0
Total	153	100.0	100.0	

The respondents were asked to rate the extent to which public participation enhances the performance of the level four hospitals. The respondents were to use a five point likert scale of 1-5 where 1 is very little, 2 is little, 3 is moderate extent, 4 is much and very much. The results show that 35.3% of the respondents indicated that public participation enhance the performance of the level four hospitals much while 29.4% indicated to a very much extent. The results also show that 23.5% of the respondents indicated to a moderate extent while 11.8% indicated to a little extent. These results are shown in table 15.

**Table 15: Public Participation enhance the Performance of the Level four Hospitals**

	Frequency	Percent	Valid Percent	Cumulative Percent
Little	18	11.8	11.8	11.8
Moderate	36	23.5	23.5	35.3
Much	54	35.3	35.3	70.6
Very much	45	29.4	29.4	100.0
Total	153	100.0	100.0	

#### Regression Analysis:

Multiple linear regression analysis was conducted to establish the influence of devolved leadership, devolved resources, devolved procurement as well as devolved policy and regulatory framework on performance of public health sector. The results show that the predictors explained 70.7% of variation in public health performance (Adjusted  $R^2=.707$ ). Table 16 presents the findings.

**Table 16: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845 <sup>a</sup>	.715	.707	1.47026

a. Predictors: (Constant), Devolved policy and regulatory framework, Devolved procurement, Devolved resources, Devolved leadership

Analysis of Variance (ANOVA) was used to establish the fitness of the model used in the regression analysis. ANOVA results that are significant show that the analysis model used was statistically significant and the results obtained were not by chance. ANOVA results that are not statistically significant show that the model used in regression analysis was not fit and there is high likelihood that the results obtained were by chance. In this study, the findings show that ANOVA results were statistically significant ( $F=92.735$ ,  $p=0.000$ ). The findings are shown in table 17.

Table 17: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	801.850	4	200.463	92.735	.000 <sup>b</sup>
	Residual	319.928	148	2.162		
	Total	1121.778	152			

a. Dependent Variable: Health sector performance

b. Predictors: (Constant), Devolved policy and regulatory framework, Devolved procurement, Devolved resources, Devolved leadership

The coefficients results show the contribution of each predictor to the dependent variable (health sector performance). The coefficients results are shown in table 18. The results show that devolved procurement contributed positively to health sector performance ( $\beta=0.605$ ,  $p=0.000$ ). The results also show that devolved leadership contributed positively to health sector performance ( $\beta=0.134$ ,  $p=0.148$ ) but this contribution is not statistically significant. The results of this study have revealed that devolved resources contributed positively to health sector performance ( $\beta=0.368$ ,  $p=0.000$ ). The findings of this study have shown that devolved policy and regulatory framework positively contributed to health sector performance ( $\beta=0.323$ ,  $p=0.002$ ).

Table 18: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3.385	.886		-3.819	.000
Devolved procurement	.605	.081	.528	7.474	.000
Devolved leadership	.134	.092	.119	1.454	.148
Devolved resources	.368	.075	.275	4.940	.000
Devolved policy and regulatory framework	.323	.103	.190	3.146	.002

a. Dependent Variable: Health sector performance

## 5. CONCLUSIONS AND RECOMMENDATIONS

### Conclusions:

This study concludes that devolved procurement has a positive and significant contribution to health sector performance. The more devolved the procurement process the better the performance of health sector in Machakos County. This study also concludes that devolved leadership has a positive contribution to health sector performance in the county. However, this contribution is not statistically significant hence could have occurred by chance. The study conclude that devolved resources have a positive and significant contribution to health sector performance. The more devolved the resources are the better the performance of health sector in Machakos County. The study also concludes that devolved policy and regulatory framework have a positive and significant contribution to health sector performance in Machakos County. This implies that the more devolved policies and regulatory frameworks regarding health are, the better the performance of health sector in Machakos County.

**Recommendations:**

This study recommends that the central government and Machakos County government should ensure that the procurement process in the health sector is fully devolved to improve performance. The devolved leadership in Machakos County should actively participate in health sector issues to ensure that they impact its performance. The central government should ensure that resources meant for Machakos County government is availed efficiently as this has been revealed to influence health sector performance. The study also recommends that Machakos County government should utilize devolved resources to improve health sector performance. The policy makers and regulators in the health sector should ensure that they have adequate county reach as the more devolved they are the better the health sector performance is going to become.

This study recommends that further research should examine factors that influence health sector performance at the national level. Future scholars should examine the procurement process problems that exist in the county governments which could influence performance of health sector. Further research should investigate role of leadership in devolved services performance. Future scholars should also look into optimal devolution of resources for optimal service performance at the county level. Further research is needed to evaluate the optimal level of devolving policy making and regulations of various sectors at the county level.

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