



## CENTRALISED MEDICAL SUPPLIES PROCUREMENT AND HEALTH SERVICE DELIVERY IN ARUSHA AND KILIMANJARO REGIONS, TANZANIA

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### ABSTRACT

*Centralised medical procurement and supply have emerged as one of advocacy strategy toward cost effective, reliable and improved quality of medical supplies in government owned hospitals. This study analysed the relationship between medical supply under centralised public procurement system and service delivery, with focus from selected government owned hospitals in Northern Tanzania. The study adopted descriptive research design and census sampling to collect data from 61 respondents from government hospitals based in Kilimanjaro and Arusha Regions. Data were analysed using content analysis, descriptive statistics, chi – square test and ordinal logistic regression. The study revealed that, centralised medical procurement procedure enhanced health service delivery to a moderate extent ( $2.68 \leq \text{mean} \leq 4.58$ ) with overall mean = 3.3 as well as medical supplies availability at the service delivery point to a moderate extent (Mean = 3.25; Standard Deviation = 1.10). Organisation capacity has significant and positive effect on health service delivery ( $P = 0.000$ ). The study therefore concluded that medical supply under centralised procurement system improves the quality and cost effectiveness towards health services delivery. However, bureaucratic procedures results into untimely delivery and inadequate quantities of medical supplies. Among others, the study recommended on the need of the entities to train staff on how to integrate, monitor and share medical supplies information on timely basis in order to improve service delivery.*

**Key Words:** Medical Supplies, Centralised Procurement System, and Health Service Delivery

**Paper type:** Research paper

**Type of Review:** Peer Review

### 1. INTRODUCTION

Worldwide, there has been a consistent pressure on many governments to restructure their procurement system to achieve efficiency in public service delivery (Boateng, 2008). To achieve this goal, an important strategy is to choose between centralised procurement system and decentralised procurement system (Weele, 2009). In central and eastern Europe, Latin America and Australia there is an increased decentralisation to enhance better service delivery due to better coordination, quicker response and shorter lead time (OECD, 2013; Hopkins, 2016; Sergio,

Israel, B., Kazungu, I., & Mchopa, A., Centralised Medical Supplies Procurement and Health Service Delivery in Arusha and Kilimanjaro Regions, Tanzania. 2015). Sweden, Finland and Lower Saxony Municipality in Germany promote centralised procurement in order to achieve savings and economies of scale. Hybrid model are applied in the United States and China (Guo and Ning, 2009). Nigeria, Ghana and most of the Sub-Saharan countries have established central bodies mandated to plan procurement, store and distribute common user items on behalf of the government's entities (Williams, 2013, Arney and Yadav, 2014). Low risk cost items are purchased under decentralised basis. Centralised procurement weakens service delivery due to delays of supplies, non conformity with quantities, forecasting errors, and unqualified staff (Musanzikwa, 2013).

Tanzania's experience shows that procurement system is mostly hybrid system whereby some procurement are centralised and others decentralised. Mostly, the centralised procurement decisions have been mandated to government selected organs including Government Procurement Service Agency (GPSA), Medical Stores Department (MSD), Tanzania Building Agency (TBA), Tanzania Electrical, Mechanical and Electronics Service Agency (TEMESA) and Tanzania Road Agency (TANROAD) (Maliganya, 2015; URT, 2011). The decentralised procurements have been mandated to the respective Procuring Entities across the countries as per Public Procurement Act, Regulations and Guidelines issued by regulatory organs from time to time. Specifically, the procurement of medical supplies has been solely mandated to the Medical Stores Department basing on the standard operating procedures directed by the Ministry of Health, Community Development, Gender, Elderly and Children.

The government advocates for quality health service to all Tanzanians (URT, 2009) which can only be achieved through having adequate facilities, work force as well as effective and efficient medical supply systems. Among the major goals of National Medicine Policy is assuring an uninterrupted supply of essential medicines that are efficacious and of good quality, physically and financially accessible and used rationally. To attain this objective, the Government has set up a national essential medicines supply system (mostly centralised) and distribution facilities from the central to regional and district levels (URT, 2008). Thus, the essential medicines in the public sector are mainly procured, stored and distributed by the Medical Stores Department. The prime objective of centralisation is to ensure availability of medical supplies at cost effective, at all times, to the government and approved non – government health facilities (URT, 2008). The procedure for acquiring medical supplies under centralised system requires quantification to be done at the health facility while the total quantities needed in the country are calculated at the MSD. Health facility orders medical supplies from MSD on quarterly basis. When medical supplies are not accessed at MSD, health facility may opt for another source of supply after seeking an approval (URT, 2013).

Availability of medical supplies at the health facility does not solely depend on effective procurement process, but also on how well procured medical supplies are effectively maintained and preserved until the time of distribution and dispensing. To ensure that service delivery and its related practices are effectively planned and implemented, adequate number, competent and skilled personnel; sufficient fund budgeted and allocated for medical supplies are needed and therefore should be appropriately organised, developed and revised (Boateng, 2008; Chana, 2011). Despite its optimism, medicine and medical supplies in government hospitals is not flawless. Frequent stock-out of medicines and medical supplies are still alarming, with 94% of hospitals experience stock out of more than one medicine and medical supplies, order fill rate is only 60% and 70% of patients leave the hospital without taking medical relief (Twaweza, 2017; Sikika, 2013; URT, 2009). Approximately, 60% of medicine and medical supplies are available in public health facilities which relatively is low compared to 80% from private health facilities (World Bank, 2016). These inefficiencies are against United Nations Health – related Sustainable Development Goal (2015-2030) and Health Sector Strategic Plan 2015 – 2020) which emphasises the right to medical care for all.

As a result, provision of standard and effective health service to the community is in jeopardy contrary to the goals of the National Health Policy and National Health Plans. Thus, despite the government to strengthen medical procurement and supply under centralised system still some health facilities procure medical supplies from private suppliers without an approval from MSD (CAG, 2016) and to some extent medical supplies are poorly available in most of the public health facilities, resulting into frequent stock out. Maliganya (2015), Musanzikwa, (2013), Sikika (2013), and Guo and Ning (2009) connect inefficiencies in-service delivery with poor management of medical inventory, limited funds needed for timely procurement and lack of responsiveness among procurement

Israel, B., Kazungu, I., & Mchopa, A., Centralised Medical Supplies Procurement and Health Service Delivery in Arusha and Kilimanjaro Regions, Tanzania. officials and suppliers. Therefore, based on the aforementioned concerns, this study sought to ascertain how organisational capacity under centralised procurement influences health service delivery in order to fill the knowledge gap since few studies such as Baldi and Vannoni (2014) have literary been undertaken to address the factors that affect the effectiveness of service delivery under centralised procurement system.

## 2. THEORETICAL UNDERPINNINGS

This study was guided by the Principal-Agency Theory and Regulatory Compliance Theory since the foundation of the study is based on the participation of different stakeholders with a number of responsibilities and regulations to comply with. Principal – Agency theory describes the agency relationship in which one party (The principal) delegates work to another party (the agent) to perform some task and make decisions in the principal's interest (Eisenhardt, 1989). The theory is useful and works well when the agent has necessary skills and expertise needed to perform duties delegated, and; substantial goal and interest between principal and agent does not differ. However, it is difficult to motivate individuals and avoiding conflict of interest between the agents and the principal so as to achieve the intended goals. When executing their tasks under principal-agent relationship, the agents need to choose actions with positive impacts for both principal and agent. Conflict of interest and poor service delivery occur when the agents decides to maximize private benefit over principal's benefits (Sharma, 1987; Aylesworth, 2003).

The government (The principal) delegates and decentralises procurement obligations and decisions to its agencies and authorities (The agents), under the power entrusted to them through employment contracts. These agents plan procurement of items, manage its supply and availability to enhance better service delivery to the public under a limited organisational resources. Shared common goals and interest between the principal and agent maximise organisation's utility and improves service delivery to the public, while substantial conflict of interest trigger complexity in service delivery (Eisenhardt, 1989). The government expect these agents to act in accordance with the established procedures and regulations while avoiding the conflict of interest and maximise organisation's utility and overall service delivery.

On the other hand, Regulatory Compliance Theory assumes the importance and significance of complying with the established systems, procedures, regulations, policies rules and laws throughout human service delivery and economic domains (Fiene, 2016). The Theory emphasis on selecting the right procedures, regulations, systems or policies rather than having more or less one that bring significant predictive of positive outcomes, whereby compliance with said rules, regulations, system or procedures is a key success factor (Ibid). However, Regulatory Compliance Theory is criticised on the ground that it does not keep into consideration on the role of qualified, competent and professional staff as key players in ensuring compliance with the adopted procedures, regulations and policies (Sharma, 1987).

Public procurement, particularly medical procurement and supply procedure is subjected into centralised system in government owned hospitals. Government hospitals are therefore obligated to comply and procure medical supplies under centralised system and its related procedures and regulations. The government assumes and strikes for improved medical procurement, supply and service delivery under centralised procurement system at reasonable price due to greater negotiation and controlled conflict of interest (Mokogi *et al.*, 2015; Wangari and Kagiri, 2015). In order to achieve effective compliance with established regulations towards effective human service delivery, the government need to establish regulations, policies and systems that do not results into bureaucratic procedures or delays. Compliance with the established procedures, system and regulations uncovers the challenges related service delivery (Williams, 2013).

Therefore, the Regulatory Compliance Theory provided guidance towards identifying the role of complying with established procedures, policies and regulations under centralised medical procurement and supply system in the selected cases, their conflicting goals and interests towards service delivery. To understand why conflicts arise between different subgroups or forces involved procurement, medical supplies and service delivery process, the role of agency relationship and the extent to which they affects procurement of medical supplies and health service delivery, principal – agency theory ties well with this study.

### 3. METHODOLOGY

This study adopted descriptive research design to describe the profile and status of organisational structure, service delivery and medical supplies under centralised procurement system, with focus on selected government hospital in northern Tanzania. The design was appropriate since what, who, where and how was the focus of the study questions with respect to variables of the study and phenomenon as it exists at present (Mugenda and Mugenda, 2008). This study was conducted in Arusha and Kilimanjaro Regions whereby a number of entities were selected. Mawenzi Regional Referral Hospital and Mount Meru Hospital were considered for the study since they receive a large number of patients per day within and outside the Regions (JICA and Fujita, 2017). These entities centralise procurement of medical supplies from Medical Stores Department-Moshi and other Suppliers (when not accessed at MSD) and manage its availability at the service delivery point.

The target population for this study were procurement staff and pharmacists from the selected hospitals who are involve directly in arranging procurement of medical supplies and manage its availability on behalf of the Government hospitals. Moreover, the heads of Procurement, Inventory and Distribution Departments from MSD were interviewed to give key information and experience on medical procurement, supply and distribution to the service delivery point under centralised system. The study involved a total of 61 respondents (i.e. 21 Procurement Staff and 40 Pharmacists) selected by using census sampling technique whereby all the Procurement Staff and Pharmacists from the selected Hospitals were selected. Also, some key informants from the MSD and District Councils were selected using purposive sampling technique basing on their expertise.

Both primary and secondary data were collected and analysed. Primary data collected in this study includes: Number of workforce and their skills, qualification and experience; fund availability and medical storage condition. Primary data were collected directly from procurement staff and pharmacists from the selected referral hospital, regional hospitals and district councils by using survey method, supplemented by interviews from six (6) Key Informants who were heads of procurement, inventory and distribution department from MSD. Secondary data were obtained from published health, procurement and medical supplies reports such as Sikika’s report on availability of essential medicines (2013), Twaweza’s Health Check Diagnostic Report (2017), CAG’s Report on Medical Procurement Procedures (2016) and Chana’s Report (2011). These related documents were reviewed to capture more information on the status of medical procurement, supply and availability particularly in Government Hospitals.

Quantitative data were coded and analysed using descriptive statistics (mean, standard deviation, frequency distribution and percentages) to establish the extent to which organisational capacity affects service delivery. Ordinal Logistic Regression (Equation 1) was applied to establish the relationship between organisational capacity (with respect to the procurement and maintenance of medical supplies) and health service delivery since the dependent variable (service delivery) was indexed categorically (Good, Fair and Poor).

$$\text{Logit } [p(x)] = \text{Log} \left[ \frac{p(x)}{1-p(x)} \right] = \beta_0 + \beta_1 x_1 \dots \beta_p x_{p+\epsilon} \dots \dots \dots \text{Equation (1)}$$

### 4. FINDINGS AND DISCUSSION

#### 4.1 Centralised Medical Procurement Procedures

The study examined the extent to which centralised medical procurement procedures influences health services delivery. The target respondents were asked to indicate whether their particular organisation adheres to established procedures for procuring medical supplies from MSD. The findings in Table 1 show that the majority of the respondents (70.5%) reported that procurement of medical supplies were implemented according to the established procedures under MSD, compared to 18 (29.5%) who argued otherwise which concurs with CAG report (2016) who noted that in some cases Hospitals procured medicine and medical supplies from private suppliers without an approval from MSD.

**Table 1: Centralised Procurement Procedures (n = 61)**

Aspects Related to Centralised Medical Procurement Procedures	Mean	Std. Deviation
Procurement of medical supplies basing on National Essential Medical Lists	4.58	1.20
Medical supplies ordering process employed enhances medical supplies availability at the health facilities	3.25	1.10
Accuracy forecasting for demand of medical supplies in government owned hospitals	2.89	0.98
Medical supplies delivery schedules is met by MSD to hospitals requirements	2.68	1.05
Requesting for approval to purchase medical supplies from other suppliers when not available at MSD whenever necessary	3.48	1.02
Availability of Medical Supplies at MSD when needed at the service delivery point	2.95	1.13
<b>Overall Mean</b>	<b>3.31</b>	<b>1.08</b>

Respondents were also asked to indicate the extent to which centralised medical procurement procedures related practices are implemented to influence health service delivery in their particular organisation. Findings show that, centralised medical procurement procedure enhanced health service delivery to a moderate extent ( $2.68 \leq \text{mean} \leq 4.58$ ) with overall mean = 3.31. Furthermore, the study revealed that to a very great extent, medicine and medical supplies procured in government hospitals were selected based on the established National Essential Medical Lists (Mean = 4.58; Standard Deviation = 1.20). Medical supplies ordering process employed under centralised procurement system enhances medical supplies availability at the service delivery point to a moderate extent (Mean = 3.25; Standard Deviation = 1.10). Under centralised medical procurement procedures, planning for medical supply is made at MSD centre while forecasting, quantification and ordering are made at the service delivery point resulting into delays in procurement process of medical supplies (Boateng, 2008). During an interview one of the inventory managers at the MSD, argued that:

*“...The challenges we actually face under centralised procedure is the problem of inaccurate forecasting information from the service delivery point. Sometime we do find a huge deviation between the information submitted by a hospital or council regarding the forecasted demand for medical supplies and the actual medical supplies ordered in a particular period...”*

Accurate forecasting for demand of medical supplies is one of the critical success aspects that influence medical availability at the service delivery point (Chana, 2011). However, it was found that forecasting for demand of medical supplies is less accurate, thus distorts health service delivery in government owned hospitals (Mean = 2.89; Standard Deviation = 0.98). Furthermore, the study revealed that, to less extent (Mean = 2.68; Standard Deviation = 0.98) MSD delivered medical to meet Hospitals requirements when needed. This implies that medical supplies were not delivered on time when procured or needed at the service delivery point. The head of distribution department at MSD connected the problem of untimely delivery with unreliable means of transport by arguing that:

*“...I can connect the problem of untimely delivery of medical supplies to the service delivery point with unreliable means of transport from Central Medical Stores. We have limited number of trucks designed to serve ten zones, keeping into consideration MSD’s distribution plan and schedule. Our accuracy in timely delivery depends on medical supplies timely delivery from the central store or suppliers...”*

The findings further revealed that procuring entities request for approval to purchase medical supplies from other suppliers when they are not available at MSD to a moderate extent (Mean 3.48; Standard Deviation = 1.02). This observation is in line with CAG (2016) who reported that some PEs procure medical supplies from suppliers without an approval from MSD. Nevertheless, it was found that to a moderate extent (Mean = 2.95; Standard Deviation = 0.98) medical supplies are available at MSD whenever needed for procurement by the government

Israel, B., Kazungu, I., & Mchopa, A., Centralised Medical Supplies Procurement and Health Service Delivery in Arusha and Kilimanjaro Regions, Tanzania. hospitals, implying that sometime MSD undergoes medical supplies stock out. The largest Standard Deviation of 1.20 and the least Standard Deviation of 0.98 was recorded on the extent to which the aspects related centralised medicals procurement procedures affects health service delivery. This indicates larger dispersion from the mean scores, thus convergence of responses from respondents on a particular aspect.

Regulatory Compliance theory assumes for improved performance and service delivery when the organisation adopts the best practices, regulations and procedures and complies with them in executing their duties. However, non-compliance with established procedures results into deteriorated organisation performance and service delivery. The study revealed a moderate compliance with the established medicals procurement procedures in government hospitals (Overall mean = 3.31). In line with Regulatory Compliance Theory, it was revealed that service delivery has been deteriorating in government owned hospitals due to non-compliance with established medical procurement and supply procedures under centralised system. Moreover, these findings support OECD (2013) and Hussein and Wanyoike (2015) who posited that centralised public procurement system is subjected to bureaucratic procedures resulting into longer procurement lead time and delays in service delivery. Centralised medical procurement procedure is therefore one of the basis of ineffective service delivery in government owned hospitals (Boateng, 2008).

#### 4.2 Organisation Capacity

Organisation capacity in terms of fund availability, medical supplies storage capacity and number of employees, their experience and professional qualifications were one of medical procurement and supply aspects that were examined to identify its effects on health service delivery. Respondents were asked to respond if their particular organisation strategizes to enhance its capacity for effective medical procurement and supply. It was found that, 59% argued that their organisation strategizes to enhance their capacity for effective medical procurement and supply and overall health service delivery. However, 41% reported otherwise. This implies that government owned hospitals experienced insufficient fund, limited number of employees and their related qualification and storage capacity toward sustainable health service delivery. The study too ascertained the extent to which organisation capacity affects medical procurement, supply and overall health service delivery under centralised system.

**Table 2: Organisation Capacity (n = 61)**

Organisational capacity	Mean	Std. Deviation
Availability of workforces to handle procurement and supply of medicines and medical supplies	3.68	1.12
Availability of professional qualified workforces to handle procurement and supply of medicines and medical supplies	4.23	1.08
Adequately experienced workforce for at least three (3) years in handling medical procurement and supply	4.26	0.99
Available storage facilities sufficient to store required medicines and medical supplies in a due time	3.97	1.02
Sufficient allocation of funds for procurement of medicine and medical supplies is made available when needed	3.45	0.97
Strategic protection of medicine and medical supplies against climatic, physical and biological hazards	4.18	0.95
<b>Overall Mean</b>	<b>3.96</b>	<b>1.0217</b>

Respondents were asked to indicate their understanding, knowledge and experience on the extent to which organisational capacity in their particular organisation have been strategized to enhance health service delivery. The findings in Table 2 depict that to a moderate extent ( $3.45 \leq \text{mean} \leq 4.26$ ) government owned hospitals strategizes to enhance their capacities for effective medical procurement, medical supply and ultimate health service delivery. It was further revealed that to a moderate extent, number of workforces are available to handle procurement and supply of medicines and medical supplies (Mean = 3.68), evidenced by the Standard Deviation = 1.12. This implies that government hospitals experience inadequate number of workforce, which is in line with

Israel, B., Kazungu, I., & Mchopa, A., Centralised Medical Supplies Procurement and Health Service Delivery in Arusha and Kilimanjaro Regions, Tanzania. *Sikika* (2013) findings. However, the study further revealed that the available number of workforce are professionally qualified to handle procurement and supply of medicines and medical supplies on behalf of government owned hospitals (Mean = 4.23; Standard Deviation = 1.08). It was also found that to great extent (Mean = 4.26; Standard Deviation = 0.99) procurement staff and pharmacists available are adequately experienced in handling medical procurement and supply, thus they are able to handle their duties effectively.

Furthermore, the study found that to a great extent (Mean = 3.97; Standard Deviation = 1.02) government owned hospitals own adequate number of storage facilities needed to store required medicines and medical supplies in due time, and that to a great extent (Mean = 4.18; Standard Deviation = 0.97) available facilities for medical storage are strategically protected against climatic, physical and biological hazards. This implies that the right quantity of medical supplies were stored and supplied at the service delivery point in the right quality. The study further revealed that to a moderate extent (Mean 3.45; Standard Deviation = 0.95) funds are allocated and made available for procurement of medicines and medical supplies when needed. In connection to these findings, during an interview, a key informant argued that:

*“...MSD is an independent organisation, the amount of fund we generate sometime is insufficient for medical procurement from suppliers as may be requested by all PEs, so sometime we do ask for fund from the government. However, the amount we receive is little compared to what we may request. This in turn limits our medical procurement and supply capacity within our zone, and sometime we do experience stock out of some medicines and medical supplies due to insufficient funds for procuring and supply of the same...”*(Field data interview, Moshi).

The Principal – Agent theory is useful in explaining the role of organisation capacities toward enhanced organisation performance. Principal – Agent theory assumes to work well, and that overall organisation performance or service delivery can be improved when the assigned key employees (agents) have the required necessary skills, qualifications and experience to perform their duties. The findings provide an indication that government hospitals have been able to improve service delivery due to presence of enhanced employees’ skills, qualification and experience and sufficient funds availability in medical procurement and supplies to a great extent, with an overall mean of 3.96. The respondents differed less on the extent to which organisation capacities supports better health service delivery in government owned hospitals, evidenced by the standard deviation ranging from smallest 0.95 to largest 1.12. These findings relate to those of Mokogi *et al.*, (2015) and Boateng (2008) who found that adequately qualified, experienced workforces and sufficient allocated funds for procurement lead to enhanced better service delivery. Enhanced organisation capacity provides an opportunity for government owned hospitals and MSD to procure medical supplies of the required quantities whenever needed, while maintaining efficiency and effectiveness.

#### 4.3 Organisation Capacity and Service Delivery

Chi-Square Test was used to ascertain the strength of association between organisation capacity and service delivery at 95% confidence level. Under Chi – Square test, when the associated P – value is less than the critical value ( $P < 0.05$ ) then it reveals a statistical significant relationship between the variables in question. Table 3 presents the findings of association between organisation capacity and service delivery.

**Table 3: Chi – Square Test**

	Value	Df	Asymp. Sig. (2-sided)
<b>Pearson Chi-Square</b>	26.074 <sup>a</sup>	2	0.000

The Chi – Square statistics in table 3 revealed a statistical association between organisation capacity and service delivery ( $P = 0.000$ ), indicating a significant association between organisation capacity and service delivery. Findings provide an indication that organisation capacity in terms of sufficient fund for medical procurement, enhanced employees skill, qualification and experiences had significant effect on health services delivery. The findings support Mokogi *et al.*, (2015) observation that enhanced organisation capacity in terms of sufficient fund availability, adequate number workforces who are well trained, qualified and experienced, are the key drivers toward improved organisation performance and overall service delivery.

**Table 4: Test of Parallel Line**

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Null Hypothesis	31.827	-	-	-
General	23.847	7.980	4	0.092

**a. Link Function: Logit.**

The Cox and Snell, Nagelkerke and McFadden explain how dependent variable (health service delivery) varied with variation in independent variables (organisation capacity). Nagelkerke was found to be 0.692 meaning that the predictor variable enhances service delivery by almost 69.2% at 95% confidence level, leaving only 30.8% for other unaccounted variables. Therefore, it is sufficient to argue that, medical procurement and supply under centralised system is essential tools for enhancing service delivery. Table 5 also presents Wald statistics, parameters estimates ( $\beta$ ) and contribution of independent variable (P) towards health service delivery at 95% confidence level. It was revealed that centralised medical procurement procedure negatively and significantly affects health service delivery ( $\beta = -1.938$ ,  $p = 0.044$ ), organisation capacity positively and significantly influence health service delivery ( $\beta = 3.791$ ,  $p = 0.000$ ). From the Wald test shown in Table 5,  $P = 0.000$  indicating that additional one unit in organisation capacity will lead to 13.387 increases in health service delivery.

**Table 5: Parameter Estimates**

Variables	Estimate ( $\beta$ )	Std. error	Wald	Df	Sig.
Health Service Delivery_00	1.193	0.523	5.031	1	0.025
Health Service Delivery_01	5.341	1.099	23.613	1	0.000
Centralised Medical Procurement Procedure	-1.938	0.964	4.038	1	0.044
Organisation Capacity	3.791	1.036	13.387	1	0.000

*Cox and Snell = 0.609; Nagelkerke = 0.692; McFadden = 0.443*

The model produced a positive and significant relationship between organisation capacity and services delivery ( $\beta = 3.791$ ,  $p$ -value =  $0.000 < 0.05$ ). Hence, research hypothesis ( $H_A$ ) is confirmed. It is concluded that there is a positive and significant relationship between organisation capacity and services delivery under centralised system. This observation corroborates findings by Mokogi *et al.*, (2015) who posited that sufficient allocated procurement, skilled, qualified and experienced workforces play a significant and positive role toward organisation performance or in-service delivery. Furthermore, this finding affirms the assumption under the Principal – Agency Theory that an organisation performs better when the agents (workforces) have the necessary skills and expertise needed to perform the duties delegated. Moreover, these findings concur with the assumptions under the Principal-Agency Theory (PAT) and Regulatory Compliance Theory (RCT) that a particular organisation tends to perform better and enhance its service when they have adequate number of employees who are well qualified, skilled and experienced to perform their assigned duties; and when adopts the systems, procedures, regulations, policies rules and laws and comply with them accordingly throughout human service delivery and economic domains.

**5. CONCLUSION AND RECOMMENDATIONS**

The study found and hereby concludes that, organisation capacity in terms of fund availability for medical procurement, employee's qualification and experience is statistically is significant associated with health service delivery. The study further concluded that, to great extent government hospitals strategizes to enhance their capacities. When sufficient fund is allocated for medical procurement, when key employees are professionally and academically qualified, and when organisation own adequate number of storage facilities for medical supplies, ultimately prospective organisation improves its overall service delivery. Based on the key issues particularly those negatively affecting service delivery, it is recommended to the management of hospitals to train their staff on how to integrate, monitor and share medical supplies related information system on timely basis; and the use of modern forecasting and quantification techniques (such as the use of forecasting software, rather than basing on past consumption data or techniques) in order to enhance their capacity and efficiency.



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