



DETERMINANTS OF PUBLIC PROCUREMENT IN TERTIARY INSTITUTIONS IN KENYA: A CASE STUDY OF THE KENYA MEDICAL TRAINING COLLEGE

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ABSTRACT

This study established the determinants of public procurement in tertiary institutions in Kenya with a specialized focus of Kenya Medical Training College. The study adopted a descriptive research design. The study's target population was 285 heads of procurement, finance officers and their assistants at KMTC. Size of the sample constituted 166 respondents who were selected with the help of a stratified random sampling approach. The study used primary sources of data that was collected using semi-structured questionnaires having both open-ended and closed questions. Data was analyzed using quantitative analysis methods namely, descriptive analysis and inferential analysis. Under descriptive statistics, mean and standard deviation were utilized to summarize the pattern of variables while regression analysis was utilized to test hypothesis and associations between variables. Statistical Package for Social Sciences (SPSS) was utilized for data analysis. Qualitative data was analyzed using content analysis. The study found that information technology, procurement planning and staff competence were significantly linked to performance. However, political influence was insignificantly linked to procurement performance. The coefficient of determination was satisfactory (56.3%) and overall regression model significant since its p-value was below 5% (0.000). Correlation results established that information technology and procurement planning were strongly correlated to procurement performance while staff competence and political influence were moderately and weakly correlated to procurement performance. The study recommended the need to continue investing in technological innovations and integrating procurement systems. These technologies should be integrated with business processes and supply chain channels to lower cost and enhance efficiency. There is need for public organizations to sponsor their staff for development and training programs to improve their skills and boost their efficiency and creativity in their work. Also, public organizations should institute plans to ensure that funds for procurement can be channeled through effective methods that facilitate efficient delivery of goods, services and works.

Key Words: Procurement Planning, Information Technology, Politics, Staff Competence, Public Procurement

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INTRODUCTION

The major problem facing public procurement globally is wasteful government spending for paying of public services and goods. In a study conducted by Garson (2014), it was established that huge amounts of money were spent in public procurement hence the need for accountability since its public funds. Also, the State of South Carolina in the U.S abandoned its system of e-procurement on June 2002 and most of the pilot projects were closed down in Massachusetts, Indiana and Michigan because of lack of accountability and transparency of public funds (Shaw, 2010). Most parts of Europe particularly United Kingdom, Ministry of Defense reported cases of inability to achieve target savings from e-procurement services after a duration of three years (Slack & Brandon-Jones, 2018).

According to Ameyaw, Mensah and Osei-Tutu (2012) Public Procurement (PP) can be defined as a government function that entails decisions on services which they deliver to local authorities and communities that they serve (Girth, Hefetz, Johnston & Warner, 2012). Public procurement involves government purchase and state-owned enterprises of goods, services and works. As public procurement includes a significant percentage of the tax payer's money, governments are required to conduct public procurement efficiently while maintaining high standards to ensure quality service delivery and protection of public interest. The only way public procurement can be beneficial to all the stakeholders is when it is effective. For instance, the public sector in the UK spends over £150 billion a year on goods and services necessary to deliver public services (Knight, Harland, Telgen, Thai, Callender & McKen, 2012). Hence the need to maintain efficient and effective public procurement systems and processes to minimize waste and improve ensure value for goods and services delivered. By reducing bottlenecks, combating corruption, and building capacity in procurement, this helps governments to maximize the buying

power of their budgets and improve quality of service delivery to their citizens. Competitive and transparent public procurement systems are therefore a key element to achieving sustainable development and more prosperous societies (Walker & Phillips, 2009).

Public procurement performance can be defined as the level of efficiency and effectiveness of actions in managing the public procurement function (Neely, 2005). There are various factors that should be considered when measuring public procurement performance namely personnel, management, procedures, policies, and information system (Patrucco, Luzzini & Ronchi, 2016). Measuring public procurement performance is a vital role of the firm particularly in supply chain in case of an economic decline. Procurement not only comprises of acquisition of goods and services through the purchasing department but it also involves responsibility to explore and formulate strategies that integrate the mission and objectives of the firm. For a performance measurement system to be considered as a useful management process, it should act as a mechanism that allows assessment to be made, through providing useful information and detecting problems, and allow judgement against certain predetermined criteria to be performed.

Kenya Medical Training College (KMTTC) Nairobi City Campus officially started in 1927 with only four students at Kenya Institute of Administration (KIA), Kabete. It's a public middle level medical training institution under Medical Services Ministry. It is located approximately three kilometers towards the Northern side of Nairobi City. In the 90s', it became a semi-independent Government agent by an Act of Parliament, Cap 261, Legal Advertisement No.14, Kenyan Laws.

Performance can be defined as the firm's ability to maximize on its existing resources such as human capital and knowledge to accomplish its set goals and objectives. There exist three categories of firm performance measurement namely, performance

prism, performance measurement matrix as well as the Balanced Score Card (BSC). Neely, Mills and Platts (2001) opine that performance prism emphasized on stakeholder orientation. This system of performance measurement prompts the decision makers to identify all organisation needs. The matrix is the second measure of performance advanced by Keegan, Eiler and Jones (2011), with similarities of the prism. Its activities are categorized in form of a matrix. Balanced Score Card (BSC) is the third system of measurement that was postulated by Kaplan and Norton (2009), they indicated that BSC uses four perspectives to assess performance in the organisation, these include financial, learning and growth, internal business process and the customer. BSC can be utilized to align business strategy and lower costs this improves internal operations of the organisation and cultivates innovation through use of information technology (Kleijnen & Smits, 2003; Bhagwat & Sharma, 2007). When the correct tools are designed and performance is assessed, it is easy to tell whether the firm is making the right progress in realizing set goals and targets or not.

Statement of the Problem

Public procurement has undergone tremendous changes reforms 1960 to date, with the enactment of key legislations, regulations and policies. However, a lot of concern has been raised by members of public and development partners on the lack of strategic focus in procurement plans, high level of corruption, conflict of interest, strategic policies and lack of adherence to the currently laid policies (Kokor, 2015; Dza, Fisher & Gapp, 2013). Studies have been conducted on performance of public procurement globally and locally but limited focus has been given on factors affecting public procurement performance in Tertiary institutions. However, there is a general consensus that public procurement performance in most public institutions is poor and inefficient (Hamza, Gerbi & Ali, 2017). Further, it has been established that procurement system is marred by incompetence, inefficiency, negligence and

misconduct (Bekele, 2015; Anane & Kwarteng, 2019), violation of procurement procedures, delayed deliveries and incompetent procurement personnel (Kabega, Kule & Mbera, 2016; Asante, 2017). Thus, there is a need to ensure that systems of public procurement and processes reduce waste and add value to good and services procured. This might be achieved by first ensuring compliance with procurement rules, ensuring transparency and accountability, fighting corruption and regular training of staff. This will aid governments to exploit their budget's buying power and boost quality of public services (Walker & Phillips, 2009).

Many local studies for example, Gesuka and Namusonge (2013), have dwelt on compliance of public procurement regulations in Kenya. Other studies by (Nzau & Njeru, 2014; Wanyonyi & Muturi, 2015; Okong'o & Muturi, 2017; Wahu et al., 2017) are limited in scope to scope hence, the studies are not exhaustive. Also, the combination of factors affecting PPP is different, many studies have largely ignored factors such as political influence and staff competence that the current study is considering.

It is against this backdrop that this study found it necessary to establish the determinants of public procurement in Tertiary institutions in Kenya with a specific focus on Kenya Medical Training Colleges.

Objectives of the Study

The general objective of this study was to establish the determinants of public procurement in Tertiary institutions in Kenya. A case study of the Kenya Medical Training College. The specific objectives were to:

- To determine the influence of procurement planning on public performance procurement at Kenya Medical Training College
- To establish the influence of information technology on public procurement performance at Kenya Medical Training College
- To find out political influence on public procurement performance at Kenya Medical Training College

- To examine the influence of staff competence on public procurement performance at Kenya Medical Training College

LITERATURE REVIEW

Transaction Cost Economics Theory

The theory of Transaction Cost Economics (TCE) was elaborated by Williamson (1975) based on former concepts developed by Coase (1937). As a branch of the New Institutional Economics, TCE essentially contributes to the question why firms are founded and how they are governed and structured hierarchically. A transaction is defined as the transfer of a pre-product or semi-manufactured product or service from an upstream to a downstream manufacturing stage (David & Han, 2004). Furthermore, transaction costs may also integrate transaction risks that other parties break an engagement agreed upon (Grover & Malhotra, 2003). This study considers transaction costs only as costs of the types of information, communication and coordination. Costs can be measured as employee efforts including travelling costs. For example, when a procurement manager spends one week abroad evaluating the supplier, his costs of labour and travelling expenses will be allocated to the transaction costs of the corresponding buyer-supplier relationship. Transaction costs form part of the total cost of ownership (TCO) of a purchased good.

Transactions are handled in such a way as to reduce costs involved. This relates to transaction governance; the mode of vertical integration across value-adding stages. Due to challenges in measuring and observing transaction costs, analysts have to rely on estimations of reduced-form relationships between observed traits and organisational form. Secondly, it is not easy to determine the transactional costs of procuring goods and services without additional information since the magnitude of transaction cost differentials and its effect on performance cannot be determined from standard empirical tests of transaction costs hypotheses (Macher & Richman, 2008).

Resource-Dependence Theory

The resource-dependence theory (RDT) focuses on a set of power relationships based on exchange of resources (Pfeffer & Alison, 1987). It recognizes that companies do not possess all the resources they might require in the process of value-creation, hence will often become dependent on each other (Emerson, 1962; Hunt & Morgan, 1996). The key issue then becomes how organisations manage their power-dependence relationships to maintain their functional and operational requirements (Pfeffer & Salancik, 1978). In this regard, RDT assumes that organisations often form coalitions to increase their power and make other organisations dependent on themselves (Heide, 1994). Resource manipulation and control exertion are the strategies offered by RDT to manage uncertainty and dependence in business transactions. In their argument on the issue of resource dependence in procurement, Ketchen and Hult (2007) highlighted the dissimilar nature of dependence in the traditional and best value supply chains. While traditional procurement tends to behave opportunistically in relation to their power-dependence advantage along the chain, best value procurement exploit dependency as a means of fostering trust and commitment to fulfill procurement requirements (Crook & Combs, 2007).

This theory further assumes that survival of the firm largely depended on how best the firm interacted with other stakeholders in the environment to acquire resources as opposed to managerial talents and knowledge (Pfeffer & Salancik, 2003). The relevance of this theory is because the organisation can easily gather, modify and effectively use resources much faster than its rivals, this is key to the organization's success. To successfully implement public procurement, state organisations should have the right resources for example, competent staff and technology in order to successfully deliver quality services to the public. In line with the tenets of this theory on scarcity of resources found in the environment, it is worth noting that organisations depend on these

resources to survive hence their inability to control these resources could result to uncertainty (Ketchen & Hult, 2007). There is need for public institutions to consider four critical decision points in their supply chain namely make-or-buy, sourcing strategies, contracting decisions and supplier strategy.

Social Network Theory

Jacob Moreno is credited to have postulated this theory from his works: sociograms in 1930s which was aimed at exploring interpersonal relationships. This concept was formalized using mathematical methods in 1950s, this approach started being accepted in behavioral sciences in the 80s. Over the last two decades, this theory has gained traction and its relevance can no longer be over emphasized (Borgatti & Foster, 2003), among operations and production management scholars for example Hearnshaw and Wilson (2013). Central to social network perspective is the idea that social networks are “conduits of valuable information” (Gulati, 1995, p. 623), which otherwise would not have been available to an individual (Lin, 1999). A social network is defined as “a finite set or sets of actors and the relation or relations defined on them” (Wasserman & Faust, 1994, p. 20). The actors (nodes) in social network analysis can represent different levels of any kind of social unit such as individuals, firms, organizations (Borgatti & Li, 2009). The main purpose of social network theory is to explain the consequences of network. Two types of consequences are considered. One type of consequence is referred to as “contagion” in which the key issue is to have a deeper understanding of how networks might create or spread homogeneity for example in attitudes or organisational practices. The other type of consequence, and of more relevance to understanding “insidership”, is “evaluative” and is interested in performance outcomes for network members.

Empirical Literature Review

Researchers: Willy and Njeru (2014) delved influence of procurement portfolio management on procurement performance of Agricultural

Development Corporation in Nairobi. A descriptive survey was utilized and primary data was collected using semi-structured questionnaires in a sample of 65 respondents. Analysis of data was done using descriptive statistics and the findings established existence of a strong and significant linkage among procurement planning and procurement performance. The study further concluded that procurement portfolio, effective management of logistics and compliance with procurement plans positively impacted on procurement performance. Ogwang and Waweru (2017), assessed the influence of procurement planning on performance of Kisumu water and Sewerage company. The underlying objective of the study was establishing the influence of transparency in procurement in, and procurement requirements on KIWASCO performance. A survey study design was employed in a population of 128 respondents that included procurement officers, heads of departments, middle level managers and supervisors. The study sample involved 57 respondents who were selected through a stratified random sampling approach.

Structured questionnaires were utilized to collect primary data and analysis was executed with the help of descriptive and inferential statistics and the findings established that procurement planning was positively associated with organisational performance. This was revealed by procurement facets like transparency and procurement requirements that recorded a positive association with procurement performance. Odero and Ayub (2017) studied the contribution of procurement practices on procurement performance of public sugar manufacturing firm in Western Kenya.

New Public Management, a host of innovations are driven by ICT in the public sector. The research focused on various ICT driven innovations from the perspective of electronic procurement process, which comprises of search, negotiation, sourcing, ordering, and receipt as well as post-purchase review. The study found that ICT enabled creation of tools for organizing, transmitting, storing, and acting on information in digital form in new

manner. This contributed to a more transparent and competitive environment where the government operated. Mardia and Namusonge (2016) studied the impact of IT practices on firms' performance of public organizations in Kenya, specifically in JKUAT. The objective of this study was to explore the impact of IT practices on firm performance of public organisations in Kenya. A descriptive survey design was used for the study where the target population comprised of 41 managers and procurement officials of all 8 campuses of JKUAT. A structured questionnaire was used as a tool for data collection, which was administered to 36 procurement officers stationed at JKUAT Juja campus. Administration of questionnaires happened through the process of drop-and-pick-later method to allow the participants ample time to respond to the questions. For clarity, face-to-face interviews were carried out with key informants through the use of an interview guide. To analyze quantitative data, inferential statistics and descriptive statistics were used. The study findings revealed that information technology in procurement was significantly and positively associated with improved organizational performance. It was arrived at a conclusion that technology in procurement is a major contributor to firm's performance as it improves service delivery, effectiveness, efficiency, transparency, and reduction in purchase time. These results are consistent to the study hypothesis which project that information technology would have a significant association with PPP.

In the study by Tirefa (2019) explored the factors that affected public procurement performance in Addis Ababa. The research employed a descriptive survey and a purposive and random sampling methods in a sample of 177 respondents (for questionnaires) and interviews with 9 interviewees. Primary source of data was collected via questionnaires and interview guides. Analysis of data was achieved with the help of descriptive and inferential statistics. Findings revealed that political influence was positively and significantly linked to

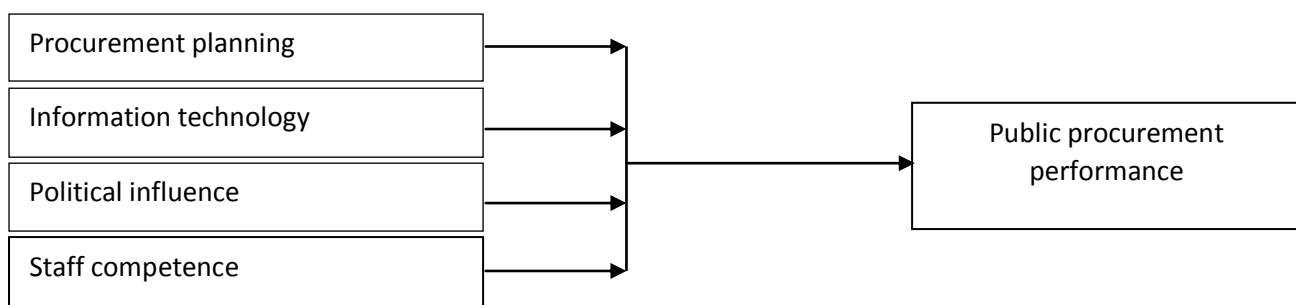
performance of public procurement. It was further uncovered that there lacked proper linkage among budget demands, other factors that inhibited performance of procurement included fraud and corruption. Omanji and Moronge (2018) investigated the influence that procurement practices had on performance of the public sector in Narok County. A descriptive survey research design was adopted in sample size of 196 respondents. Stratified sampling procedure was utilized to choose the respondents and structured questionnaires were administered to collect primary data. A multiple linear regression analysis and descriptive statistics were utilized to analyze data and the outcome proved that political influence made a significant contribution towards performance of procurement. Green purchasing policy was also found to impact on County procurement performance. In their Sandada and Kambarami (2016), on the determinants of public procurement policy compliance requirements in Zimbabwe, they applied a mixed strategy research design. The main goal was assessing the influence of identified factors on compliance towards procurement regulations and performance. Data was gathered from 144 study participants in Harare and analysis was executed using regression and correlation analysis. Results established that political inference meaningfully impacted on compliance and overall performance of procurement. Asante (2017) evaluated the factors that affect procurement performance in the public sector in Kintampo Municipal Council.

Odero and Ayub (2017) assessed effects of procurement practices on procurement performance of public sugar manufacturing firms in Western Kenya. The study's specific objective was establishing the effect that staff competence had on performance of procurement of state sugar manufacturing firms. A descriptive survey was employed and questionnaires were utilized to collect primary data. Findings revealed that staff competence was significantly and positively linked to procurement performance. Mrope (2017)

explored the contribution of professionalism on performance of procurement function in Tanzanian's public sector. The objective of this research was to analyzing the effect of professionalism on performance of procurement function. A mixer of quantitative and qualitative research methods was utilized to collect data. Target population for the study involved 470 public institutions from which 100 entities comprised of the sample size. The study applied a multi-stage stratified random sampling approach to identify potential respondents. Research findings disclosed that there was a significant relationship between professionalism and performance of public procurement.

The findings further revealed that staff competence by procurement officials played a significant role in

procurement decisions and processes. Toroitich, Mburugu and Waweru (2017) delved influence of employee competence towards successful implementation of e-procurement system in a few selected County governments. The research objective was assessing the influence of employee competence towards successful implementation of e-procurement by County governments in Kenya. A descriptive form of research design was employed in a target population of 47 County governments. A sample consisting of 5 county governments was utilized and the selection was done with the help of a simple random sampling approach. Primary sources of data were gathered with the help of questionnaires and it was revealed that employee competence contributed positively towards successful implementation of e-procurement at the grass roots.



Independent variables

Dependent variable

Figure 1: Conceptual Framework

METHODOLOGY

The study used descriptive research design. The unit of analysis for the study was public procurement officers working for KMTCS in Kenya. The study targeted Heads of Procurement and their assistants. There were 71 KMTCS that were licensed to operate within the Kenyan boundaries. The sample was chosen from a population of 213 employees with the help of a stratified random sampling approach. This study used questionnaires to collect primary data. The questionnaires were administered to 30 respondents after which they were collected and analyzed. Out of the 30 respondents, two pilot tests were conducted, one with 15 procurement officers and the other with 15

finance officers. The questionnaires consisted of open and closed-ended questions. The data collected was compiled, edited and coded into various categories using numerical values. This took place after assessing the consistency of data and reliability. Statistical Package for Social Sciences (SPSS) version 24 was used for data analysis. Analysis was done using quantitative data analysis that included descriptive statistics: frequencies, percentages, mean and standard deviation linear regression model was used to show the relationship between the study variables.

The models was of the form:

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

Where:

Y =Public Procurement Performance
 $(\beta_i, i =1, 2, 3, 4)$ = coefficients for the independent variables
 X_1 = Procurement Planning
 X_2 = Information technology
 X_3 = Political Influence
 X_4 = Staff Competence
 ϵ = Error Term

FINDINGS AND DISCUSSION

Factors Affecting Public Procurement Performance

The study sought to determine the extent of agreement with the following statements concerning procurement planning and performance of KMTCs. The output was tabulated as follows:-

Table 1: Procurement Planning

Statement	Mean	Standard deviation
The organisation ensures that its plans are within the budget	3.76	0.19
The organisation ensures there is a need before an item is procured	3.45	0.20
The organisation does early requisitions	3.15	0.21
The organisation has reduced its dependency on suppliers	3.27	0.20
There is timely allocation of resources	3.10	0.22
The organisation is able to make timely decisions	3.56	0.20
There is compliance with procurement rules	2.98	0.44
It is easy to trace and track orders	3.55	0.19
Average score	3.35	0.23

From Table 1, the participants were requested to provide their opinion on the influence of procurement planning on procurement performance. Feedback from the respondents was guided by Likert scale which comprised of 5 options. The feedback was as follows: -

In the first statement, the respondents were asked whether the organization's plans were within the budget. The statement recorded a mean of 3.76 within a standard deviation of 0.19. In the second statement, the respondents were requested if the organisation ensured there was a need before purchasing items. This statement had a mean of 3.45 and standard deviation of 0.20. The third statement, the respondents were requested whether their organisation did prior requisitions. The statement attained a mean of 3.15 with a standard deviation of 0.21. In the fourth statement, the participants were requested whether the organisation had minimized its reliance on suppliers and the statement recorded a mean of 3.27 and standard deviation of 0.20. The fifth statement was aimed at determining whether there was timely resources allocation which recorded a mean of 3.10

and standard deviation of 0.22. The sixth statement was aimed at establishing whether the organisation made timely decisions which scored a mean of 3.56 and a standard deviation of 0.20. In the seventh statement, the participants were asked whether the organisation complied with the rules of procurement and the statement had a mean of 2.98 with a standard deviation of 0.44. The last statement the study sought to determine whether it was easy for the organisation to trace and track order for which the statement attained a mean of 3.5 with a standard deviation of 0.19. In line with these findings is the observation by Salim and Kitheka (2019) who established that early requisitions, timely allocation of resources, compliance with procurement rules and minimized dependency on suppliers as key pillars of procurement planning.

Information Technology

The study sought to determine the extent of agreement with the following statements on information technology and performance of KMTCs. The output was provided as follows: -

Table 2: Information Technology

Statement	Mean	Standard deviation
Tenders are advertised online	3.65	0.14
The organisation maintains a database of pre-qualified suppliers	3.72	0.19
The organisation sponsors employees for a continuous training to keep them updated on procurement innovations	3.61	0.11
The process of procurement is automated in the organisational functions	4.10	0.01
Use of information technology has completely reduced paper work	3.78	0.17
Integrity and transparency have improved tendering process	3.65	0.25
Standardization processes and processes have improved	3.72	0.19
Average score	3.75	0.15

Table 2, the study participants were asked to offer their opinion on the influence of information technology on procurement performance. Analysis was done using five points of Likert Scale as follows:

The first statement sought to establish whether the organisation advertised its tenders online, and the statement recorded a mean of 3.65 and a standard deviation of 0.21. The second statement sought to find out whether the organisation maintained a database of prequalified suppliers and the statement had a mean of 3.72 with a standard deviation of 0.11. The third statement sought to establish whether employees were sponsored by their organisation for a continuous training while the statement had a mean of 3.61 and standard deviation of 0.11. The fourth statement sought to establish whether the organisation had automated its procurement processes into its functions for which the results found a mean of 4.10 and standard deviation of 0.01. The fifth statement sought to determine whether use of IT had reduced

paper work under which the finding recorded a mean of 3.78 and a standard deviation of 0.17. The sixth statement sought to determine if transparency and integrity enhanced the process of tendering. The result recorded a mean of 3.65 with a standard deviation of 0.25. The seventh statement sought to determine whether the process of standardization had improved with the use of integrated procurement. The finding attained a mean of 3.72 and a standard deviation of 0.19. The findings were consistent with the observations of Svidronova and Mikus (2015), who found out that use of technology in public procurement led to integration of procurement systems, less use of paper, standardization and improved transparency and accountability.

Political Interference

The study sought to establish the level of agreement with the following statement concerning political interference and procurement of KMTC. The results were provided below: -

Table 3: Political Interference

Statement	Mean	Standard deviation
There is undue influence on budget authorization	1.92	0.12
Award of tenders have interest from different groups	2.15	0.15
The organisation faces pressure on implementation of procurement laws	2.55	0.22
Procurement officers face pressure from politicians to make decisions	1.91	0.01
Awards for tenders are always competitive	2.45	0.18
The organisation does debriefing	3.45	0.02
Average	2.41	0.12

In table 3, the respondents were asked to offer their opinion on the influence of politics on procurement performance. Responses from respondents was guided by Likert scale. The results were as follows: In the first statement, the respondents were asked to indicate where there was undue influence on authorization of budgets. The finding recorded a mean of 1.92 and standard deviation of 0.12. In the second statement, the participants were asked whether tender award had interests from different groups. The finding attained a mean of 2.15 and standard deviation of 0.15. In the third statement, the respondents were asked whether the organisation was under any pressure to adopt procurement laws. The finding attained a mean of 2.55 and standard deviation of 0.22. In the fourth statement, the participants were asked whether the organisation experienced any pressure from politicians to favour them in tender award. This finding attained a mean of 1.91 and standard deviation of 0.01. In the fifth statement, the participants were asked whether the process of awarding tenders in their organisation was competitive. The finding recorded a mean of 2.45

and standard deviation of 0.18. In the last statement, the participants were requested whether their organisation did debriefing. The finding had a mean of 3.45 and standard deviation of 0.02. The findings were in line with the recommendations of OECD (2013), who insists on the need to avoid political interference and advances in public procurement. The need for autonomy and priority on public interest at all the levels of the policy process, and specifically by promoting open government and transparency, including actively ensuring competitiveness, no influence on budget authorization. In line with these findings is Tirefa (2019) who insisted on the need for competitiveness in the procurement process, importance of debriefing and independence in budget authorization.

Staff Competence

The participants were asked to give their views regarding the influence of staff competence on procurement performance. The response issued were guided by Likert Scale. The feedback was as follows:

Table 4: Staff Competence

Statement	Mean	Standard deviation
The organisation hires staff based on their skills	3.33	0.24
New recruits go through a rigorous induction program	2.55	0.20
Staff are knowledgeable of procurement rules	3.45	0.27
The organisation sponsors its employees for training programs	3.10	0.29
The staff have problem solving skills	2.76	0.28
The staff comply with the code of conduct	3.58	0.27
The organisation hires experienced staff	2.92	0.26
Average	3.10	0.26

In Table 4, the respondents were asked to give their views on the influence of staff competence on procurement performance. The results were as follows:

The first statement sought to determine whether the organisation hired employees in accordance to their skills. This finding recorded a mean of 3.33 and standard deviation of 0.26. The second statement sought to establish whether new employees went an intense induction program. The finding attained

a mean of 2.55 and standard deviation of 0.20. The third statement sought to determine if the staff were conversant with procurement rules. The statement had a mean of 3.45 and standard deviation of 0.27. The fourth statement sought to find out if the staff were sponsored for training programs. The finding attained a mean of 3.10 and standard deviation of 0.29. The fifth statement sought to determine whether employees had skills to solve problems. This finding attained a mean of

2.76 and standard deviation of 0.28. The sixth statement sought to determine whether employees observed the code of conduct in their work. The statement recorded a mean of 3.58 and standard deviation of 0.27. The seventh statement sought to establish if the organisation hired competent employees. This finding earned a mean of 2.92 and standard deviation of 0.26. The findings were consistent to the views of Toroitich et al. (2017)

who pointed that skills, training, problem solving skills and ethics were key traits of competent staff. In with this is a study by Odera and Ayub (2017), who found that experience and skills were key components of competent staff.

Procurement Performance

The study participants were requested to indicate the level at which the organisation had improved on performance.

Table 5: Procurement Performance

Statement	Mean	Standard deviation
Efficiency of public procurement cycle	3.65	0.23
Timely delivery of products and services	3.15	0.21
Reduced delays in processing supplier payment	3.45	1.01
Efficiency in procurement operations	3.45	0.24
Openness and transparency in public procurement cycle	2.46	0.19
Improved professionalism by the procurement workforce	2.56	0.21
The organisation gets value adding products and services	3.55	0.09
Average	3.18	0.31

The first statement sought to establish whether the organisation maintain an efficient procurement cycle. This result established that a mean of 3.65 and standard deviation of 0.23. The second statement sought to determine whether the organisation received its goods and services on time. The finding attained a mean of 3.15 and standard deviation of 0.21. In the third statement, the study sought to establish whether the organisation minimized its delays in processing its payments to suppliers. The results showed a mean of 3.45 and standard deviation 1.01. The fourth statement sought to establish whether the organisation was efficient in its procurement operations. The findings revealed a mean of 3.45 and standard deviation of 0.24. The fifth statement sought to determine whether the organisation was open and transparent in public procurement cycle. The finding attained a mean of 2.46 and standard

deviation of 0.19. The sixth statement sought to establish whether there was improved professionalism by the procurement workforce. This result recorded a mean of 2.56 and standard deviation of 0.21. In the seventh statement, the participants were requested whether the organisation got products and services of value. The findings attained a mean of 3.55 and standard deviation of 0.09. The findings are in line with the observations of Patrucco et al. (2016) who indicated that efficiency, on-time delivery and transparency as key indicators of procurement performance.

Correlation Analysis

Pearson correlation coefficient measures linear dependence between independent and dependent variables. The researcher did a correlation analysis on the link between the determinants of public procurement and procurement performance of KMTCS. The results were shown in Table 6:

Table 6: Correlation Analysis

		Procurement performance	Procurement Planning	Information Technology	Political Influence	Staff Competence
Procurement performance	Pearson Correlation	1				

	Sig. (2 tailed)	0.000					
Procurement planning	Pearson Correlation	0.682**	1				
	Sig. (2 tailed)	0.000	0.000				
Information technology	Pearson Correlation	0.752**	0.614**	1			
	Sig. (2 tailed)	0.029	0.000				
Political Influence	Pearson Correlation	-0.091	0.056	0.049	1		
	Sig. (2 tailed)	0.394	0.497	0.501			
Staff Competence	Pearson Correlation	0.557**	0.089	0.162	0.094	1	
	Sig. (2 tailed)	0.012	0.492	0.283	0.465	0.255	

Correlation analysis between procurement planning and procurement performance recorded a positive correlation coefficient of 0.682 and a p-value of 0.000. These implied that the output was significant since its p-value was below 5%, (0.000). Information technology and procurement performance attained the highest correlation of 0.752 and a p-value of 0.029 which was significant at $\alpha = 5\%$. Political influence and procurement performance attained the lowest correlation of -0.091 and a p-value of 0.394, this was an indication that the output was insignificant since its p-value is above 5% (0.394). Staff competence and procurement performance

also attained a positive correlation of 0.557 and a p-value of 0.012. These implied that information technology had the greatest influence on procurement performance followed by procurement planning and then staff competence while political influence had the least influence on procurement performance of KMTCS.

Regression Analysis

A model of regression was utilized to test the link between determinants of public procurement and procurement performance of KMTCS. The output was as follows:

Table 7: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781 ^a	.563	.398	1.342

The findings pointed out that the coefficient of determination was 0.563, implying that independent variables explained 56.3% of the variation in procurement performance at KMTCS.

Adjusted R² is 0.398 which meant that the variation explained by the factors which have an effect on procurement performance is 39.8%.

Table 8: Analysis of Variance

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.056	4	0.264	1.275	.000 ^b
	Residual	30.049	145	0.207		
	Total	35.105	149			

The overall model of regression utilized in the study is significant as its p-value is less than 5% (0.00).

Table 9: Coefficients

Model	Coefficients ^a				t	Sig.
	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta			
(Constant)	1.201	.765			1.461	.092
Planning	-.291	.166	-.292		2.372	.000
1 Information technology	.381	.217	.314		3.353	.000
Political influence	.031	.146	.091		0.109	.160
Staff competence	.277	.193	.159		2.204	.049

The resultant equation was as follows:

$$\text{Procurement performance} = 1.201 - 0.291X_1 + 0.381X_2 + 0.031X_3 + 0.277X_4 + \epsilon$$

Information technology, staff competence and political were positively linked to procurement performance as follows (0.381, 0.277 & 0.031m respectively), these implied that a unit increase any of the variables resulted to a corresponding increase in procurement performance. On the other hand, procurement was inversely linked to procurement performance (-0.291). Information technology, planning and staff competence were significantly linked to procurement performance as their values of probability were lower than 5% (0.000, 0.000 & 0.049, respectively). Though, political influence was insignificantly associated to procurement performance as its value of probability was higher than 5% (0.160).

FINDINGS AND CONCLUSION

The study drew a conclusion that information technology, procurement planning and staff competence play a critical role in enhancing procurement performance. The findings established that the organisation utilized information technology, procurement planning and staff competence to a moderate extent. It was further established that the organisation automated their procurement functions and processes leading to increased visibility, cost efficiency and improved productivity. Some notable information technology practices used by the organisation included online advertisement of tenders, shared communication framework, supplier database, standard processes

and procedures. Procurement planning practices used included early requisitions, timely allocation of resources, the budget is within the plan, easy tracking and tracing of orders. Some of the notable staff competence practices were continuous training program, knowledge of procurement rules and performance contracting.

Political practices were not embraced in the organisation. However, there was huge efforts by the organisation to prevent external pressures on budget authorization and ensuring that awards for procurement tenders were competitive. Regression analysis established that information technology, staff competence and procurement planning were significantly linked to procurement performance. Political influence was insignificantly linked to procurement performance. These findings are similar to correlation analysis which established existence of a correlation between information technology, planning and staff competence. However, no correlation was found between political influence and procurement performance. Automation of procurement functions enhanced visibility, cost efficiency and overall productivity. It also enabled the organisation to boost its efficiency in business transaction as well as collaboration among internal departments to maximize organisation value. Through planning, the organisation was able to plan within its budgets, track and trace its order and ensure timely delivery of goods and services. There was minimized reliance on suppliers, timely decisions and resource allocation. The staff made accurate decisions and had strong problem-solving skills. They were

efficient in their work and this saved the organisation huge operational cost.

Based on the research findings, the study made the following recommendation to improve on procurement performance. The need to craft procurement plans on time with all the necessary information by end users. Procurement plans should be drafted on time with the necessary information by the end users. Organizations should minimize unplanned requisitions by strengthening and ensuring successful implementation of organisational plans to realize organisational goals and objectives. The organisation should align procurement plans with strategic plans.

Procurement plans are purposely designed to channel funds for procurement through ensuring that the right procurement method is adopted and the kind of contract selected is appropriate for procurement of works, services and goods. There is need to assess procurement procedures within the administrative system so as to identify points of service delivery with the aim of re-engineering the process of procurement.

Contract management procedures should be improved to boost procurement performance by

minimizing delays in finance processes and delivery of goods and services through improving procedures of contract management. The organisation should continue investing in modern technologies in its business processes aligned to procurement. A regular update of ERP systems by ensuring that it is well aligned to all the operations of the organisation in a manner that is beneficial to the stakeholders. With an integrated system of procurement, it is easier for the organisation to easily communicate with the department, procurement unit and suppliers in processing procurement information for making decisions, this in turn improves accuracy and transaction time. Training awareness on key procurement aspects is key in ensuring staff are up to date with knowledge on procurement processes and its functions. The process of procurement ought to be administered by competent and experienced procurement professionals. The organisation should prioritize its staff competence to achieve excellence in service delivery as a means of achieving procurement performance.

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