ABSTRACT: The main objective of this paper as its heading suggests was to assess the effect of compliance with procurement rules and regulations on performance of the procurement functions in public entities in Tanzania. The study adopted descriptive research design in the formulation of knowledge on the effect of compliance with procurement rules and regulations on performance of procurement function in the public entities in Tanzania. Stratified sampling was used to identify a sample size of 100 public entities from a sampled population of 298. In each of the selected entity, three respondents were purposefully selected thus making a total of 300 respondents. Semi structured questionnaires and face to face interviews were the key data collection instruments. Both qualitative and quantitative data were collected and analyzed using the Statistical Package for Social Sciences (SPSS 20.1 program). Findings indicate that compliance with rules and regulations has a significant impact on procurement performance in public entities in Tanzania. Based on the regression analysis results, the coefficient for compliance with rules and regulations is 0.471 and the t-test value is 2.634 and this coefficient is significant (p-value = 0.009 < 0.05). This implies that, performance of the procurement department increases by 47% when there is an optimal compliance with rules and regulations, while holding other variables unvaried/constant. The study recommends that public entities in Tanzania should strive to comply fully with the procurement rules and regulations so as to enhance performance levels of their respective procurement departments.

INTRODUCTION

The legal and regulatory framework refers to the entire set of legal instruments (Laws, Acts, Decrees, Circulars or Regulations) that provide further detailed procedures for implementation of an administrative nature (OECD, 2010). With regard to public procurement, the legal and regulatory framework sets the rules of the process and provides the legal basis for ensuring the rights of participants and establishing their responsibilities (Agbes, 2009; Global Partners Associates, 2012). Tanzania is the first country among the East African Community members to enact an Act of parliament for public procurement – the Public Procurement Act, 2001. (Odhiambo & Kamau, 2003; Nkinga, 2003; CPAR, 2003). Hence with effect from July 2001, Public procurement in Tanzania was and still is governed by the Public Procurement Act (PPA) and its subsequent Regulations. Apart from the procurement law, there are also five statutory organs responsible for management and control of public procurement in the country, namely the Procurement and Supplies Professional Board (PSPTB), the Government Procurement and Services Agency (GPSA), the Public Procurement Regulatory Authority (PPRA), the Public Procurement Appeals Authority (PPAA) and the Directorate of Public Procurement Policy (DPPP).

Regardless of the efforts by the government of Tanzania to undertake public reform with a view to improving performance of the public sector entities, public procurement is still marred by shoddy works, partial or non delivery of the required goods and services, poor quality goods and services, corrupt practices, incompetence, favoritisms and political interferences and/or influence (Warioba Report, 2006; Mlinga, 2008; Governance and Corruption Survey Report 2009; CAG (2014). Procurement function in most of the public entities is not complying with procurement procedures and performance procedures as stipulated in the procurement law and its subsequent regulations. According to PPRA Annual Performance Reports (2010/2011 - 2013/2014 FY), there is huge expenditure in public entities through the procurement function. Non-adherence to the procurement law and regulation is also supported by the Controller and Auditor General (CAG) Reports (2010/2011 - 2013/2014 FY). Empirical studies on performance of procurement function in the public entities in Tanzania have been carried out and well documented. In both published and unpublished studies, there is consensus that performance of the procurement function in most of the public entities is poor and inefficient (Mkalimoto, 2011; Mlinga, 2011; At the entity level, the procurement system is still characterized by negligence, non adherence to procedures, unplanned procurement, partial or untimely deliveries, (Gelderman et al., 2006); Kechibi, 2012 CAG, 2014); Performance of the procurement function in public entities therefore, has been attracting great attention from citizens, politicians and development donors (Callender & Mathews, 2002; Akech, 2005; Basheka & Bisangabasaija, 2010; Mahmood 2010). In Tanzania, like in other developing countries, public procurement has thus become an issue of public attention and debate. The fundamental question arising from this introductory discussion is that “Does compliance with procurement rules and regulations have any considerable effect on performance of the procurement function”? This question formed the basis of our study in which it intended to determine the effect of compliance with the procurement legal and regulatory framework on performance of the procurement function in the public entities in Tanzania. In this paper, the terms procurement function and procurement department are synonymously used unless stated otherwise.
REVIEW OF RELATED LITERATURE

The Principal - Agent Theory
This is an agent model developed by economists that deal with situations in which the principal is in position to induce the agent, to perform some task in the principal’s interest, but not necessarily the agent’s (Health and Norman, 2004). The theory defines the relationship between the principals, such as shareholders and agents or company executives and managers. In this theory, shareholders who are the owners of the company, hire the agents to perform work. Principals delegate the running of business to the managers, who are the shareholders’ agents (Clarke, 2004). According to this theory, procurement managers and all public officials involved in public procurement activities must play the agent role for elected representatives.

The principal-agent theory was considered very relevant in this study for various reasons. First, most of the definitions of public procurement put the emphasis on process and procedures based on law and regulations (Robert and Clifford 2004, Baily et al., 2005); Lysons & Farrington, (2012), the World Bank (2004). As advocated by Van Weele (2010), an important characteristic of public procurement is on public accountability which further explains why public entities are primarily procedure driven. Secondly, the difference between public procurement and private procurement does not lie in the objectives, but the source of funding and hence procedure. While in the private sector, shareholders choose to invest their own money and accept a degree of risk, in the public sector on the other hand, the expenditures are financed from public money tax payers’ money. As a consequence, those making procurement in the public sector are accountable to representatives of the public whose money they are spending (Arrowsmith, 2010). Public procurement according to Witting (1999) is therefore, a business process within a political system and has significant consideration of integrity, accountability and national interest. Thirdly, the Public Procurement Act in Tanzania bestows the responsibility of compliance with public procurement legal framework on the Accounting Officers of all public entities in the country. The theory shows how the actions and performance of the procuring entities (as the agent) affect the government (as the principal) and other stakeholders (Muranda, 2006).

Challenges and Approaches in Measuring Procurement Performance
Measuring and determining performance of the procurement function is important for all organizations, the public sector in particular (OECD 2004, Mlinga 2007). It is only through the performance measurement that the procurement activities can be monitored controlled and effectively managed (Lysons and Farrington, 2006). On the other hand, Baily, Farmer, Jessop and Jones (2005) point out that performance measurement encourages improved performance as procurement staff are recognized and motivated through reports of actual performance measured against some kind of standards. Emphasizing on the importance of measuring performance of the procurement function, Basheka (2015) argue that if we do not measure the value we add; how can we expect others to recognize the procurement function? However, according to Baily et al. (2005), there is no single generally applicable approach which may be used to measure procurement performance because just as organizations differ, so does the role played by the procurement personnel. The measures that are important to the individual organization may not be important to another.
Despite the difficulties involved in measuring procurement performance, Lysons and Farrington (2006, pp636) discuss the general approaches to performance measurement under five main headings:

- Accounting approaches namely profit centers, activity based costing, standard costing and budgetary control and Economic Value Added (EVA)
- The Procurement Management Audit approach
- Comparative approaches - benchmarking and ratio, integrated benchmarking such as European Foundation for Quality Management (EFQM) and balanced scorecards
- Management by objectives (MBO)
- Miscellaneous approaches, such as Service Quality evaluation (SERVQUAL) and six sigma

From the Tanzanian public procurement practices, assessment of the performance of procurement departments in the public sector entities in Tanzania is conducted through the auditing exercise. Scheuing (1999) defined procurement audit as a comprehensive, systematic, independent and periodic examination of a company’s procurement environment, objectives and tactics to identify problems and opportunities and facilitate the development of appropriate action plans. According to Baily et al., (2005), one of the purposes of procurement audit is to police the extent to which the procurement policies laid down by senior management are adhered to.

Therefore, the Procurement Management Audit is the relevant approach to our study as it is the methodology currently used to assess the performance of procurement in public entities. This is mainly done by use of standard set of Compliance Checklist developed by the PPRA. The check list contains a number of indicators against which the entity’s procurement function is assessed. Each indicator has a maximum scoring weight. An entity is declared ‘compliant’ if it scores 50% and above in the procurement audit. Any score below 50% is declared as ‘non – compliant’.

**Importance of Compliance with Procurement Legal and Regulatory Framework**

Compliance is the key to the attainment of the objectives of the procurement law and its attendant regulations such as transparency, competition, value for money, accountability and the efficient use of public resources (Agbesi, 2009). On the other hand, non-compliance will defeat the overriding objectives of the Public Procurement Act and its Regulations to deliver economy and efficiency in the use of public funds, value for money, quality of services, goods, and works while adhering to the fundamental principles of non-discrimination and equal treatment, due process, access to information and transparency.

Non-compliance to procurement laws is considered as a major hindrance to the effectiveness of the laws (Gelderman et al, 2006). As result of this, it is prudent to periodically monitor and assess the procurement entities compliance with the legal and regulatory framework, at all levels within the public procurement system. Compliance with the law is not only important for the purpose of obtaining Clean Audit Reports, but more importantly in ensuring that value for money procurement is achieved through a fair, transparent and accountable manner. Compliance on the other hand
requires that all those involved in the procurement process are familiar with the rules and procedures as stipulated in the guiding law and regulations.

**RESEARCH METHODOLOGY**

**Research Design**
The study adopted the descriptive survey as a research design. As advocated by Creswell (2013), the descriptive research design is relevant for collection of information for independent and dependent variables using questionnaires and interview guide. Furthermore, the advantage of the approach was twofold; first it is capable of yielding quantitative information that can be summarized through statistical analyses and secondly, the survey method is an effective tool for getting cause- and- effect relationships and hence is the most frequently used in almost all disciplines (Ghauri & Gronhaug, 2005; Fisher, 2010). The design enabled the study to combine both quantitative and qualitative approaches in assessing the effect of compliance with procurement rules and regulations on the performance of procurement function in the public entities in Tanzania. The quantitative data were obtained by interviewing the Internal Auditors whereas the quantitative data were obtained by administering questionnaires to members of the tender boards, procurement units( departments) and user departments in the respective and surveyed entities.

**Target Population**
Since this research was carried out in response to procurement problems facing the public sector organizations, then the study identified all procuring entities in Tanzania (as defined by the Public Procurement Act) to be the target population. According to the Tanzanian Public Procurement Regulatory Authority (2015), there were 470 procuring entities in total classified in six categories as follows: - Ministries (27), Parastatals (130), Agencies (82), Independent Departments (40), Regional Administrative Secretariats (25) and Local Government Authorities (166). These are public bodies located country wide and which utilize a huge amount of the government money through procurement process.

**Sampling Frame**
In this study our sampling frame was a list of all procurement entities that were audited by PPRA in the recent three financial years ie, the 2011/2012 FY, the 2012/13 FY and the 2013/2014 FY. For the purpose of this study, our sampling frame consisted of 298 procuring entities that were covered (audited) in the three years under consideration. The chosen sampling frame of 298 entities was taken from the PPRA Annual Performance Evaluation Report for the 2013/14 FY.

**Sample Techniques and Sample Size**
Given the type of the research design, number of variables in the study, size of the sampled population and using a general rule as advocated by Kothari (2011) the researcher considered that one third (33.3%) of the accessible population would be reasonable and optimum for this study. Gay (1983) as quoted in Mugenda and Mugenda (2003) suggests that for correlational research, 30% or more is large enough to represent the salient features of the sampled population and hence the target population. Thus, 33.3% of the sampled population of 298 entities (0.333 x 298) was calculated to obtain the sample size of 100 entities.
Using proportional allocation the proportion of the size for each category was determined and obtained as indicated in table 3.1 below.

Table 3.1: Sample Size Determination

<table>
<thead>
<tr>
<th>Category of the Entity</th>
<th>Count</th>
<th>Formula</th>
<th>Sample Size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministries</td>
<td>17</td>
<td>100/298 (17)</td>
<td>6</td>
<td>6.0</td>
</tr>
<tr>
<td>Parastatals</td>
<td>82</td>
<td>100/298 (82)</td>
<td>28</td>
<td>28.0</td>
</tr>
<tr>
<td>Government Agencies</td>
<td>53</td>
<td>100/298 (53)</td>
<td>18</td>
<td>18.0</td>
</tr>
<tr>
<td>Independent Departments</td>
<td>25</td>
<td>100/298 (25)</td>
<td>8</td>
<td>8.0</td>
</tr>
<tr>
<td>RAS</td>
<td>16</td>
<td>100/298 (16)</td>
<td>5</td>
<td>5.0</td>
</tr>
<tr>
<td>Local Government Authorities</td>
<td>105</td>
<td>100/298 (105)</td>
<td>35</td>
<td>35.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>298</strong></td>
<td></td>
<td><strong>100</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research field data, 2016

In the second and ultimate stage, three respondents from each of 100 entities were selected and served with questionnaires. Using a purposive sampling, chairperson or a member of the tender board in each entity was selected. Finally, by a systematic sampling, two members, one from the entity’s PMU and another from the user department were selected. Thus, a total of 300 (i.e., 3 x 100) respondents were selected. These are the key players in the management of procurement process in the public entities in Tanzania.

Research Instruments

In this study, both questionnaire and interview guide were applied. The questionnaires were mainly used for the survey while the interview guide was used to collect in-depth information that supplemented data obtained from the survey. The in-depth information through face-to-face interviews gave detailed insight on what is the effect of compliance with procurement legal and regulatory framework on performance of the procurement function in the public entities in Tanzania. The instruments were prepared and tested before the actual survey in order to reveal any unresponsive questions.

Validity and Reliability

Validity is accuracy and meaningfulness of inferences, which are based on the research results. It is the degree to which results obtained from the analysis of the data actually represent the phenomena under study (Joppe, 2000; Mugenda and Mugenda, 2003). Comments provided by fellow experts in the field of procurement were of great and valuable inputs in validating the research instruments. Validity in this study was also supplemented by the use two methods of data collection (questionnaires and interviews) popularly known as triangulation. As advocated by Decrop, (2004), by combining data sources and methods triangulation opens the way for more credible interpretation.

The reliability of an instrument refers to its ability to produce consistent and stable measurements. The goal of reliability is to minimize the errors and biases in a study (Yin, 2013). In this study reliability analysis was used to test the internal consistency of the research instruments for the purposes of identifying those constructs in the questionnaire with low correlations in order to
exclude them from further analysis. Cronbach's alpha a coefficient of reliability that gives unbiased estimate of data was used to test reliability of the answered questionnaires.

**Data Processing and Analysis**

Using the Statistical Package for Social Science (SPSS) version 20, the collected data was analyzed. The analysis used both descriptive and inferential analyses for qualitative and quantitative data respectively. Descriptive statistics were used to obtain preliminary findings that informed further analysis. Such descriptive analysis provided simple summaries of the characteristics of the sample such as measures of central tendency, frequencies and percentages, among others. The data for the independent variables were qualitative in nature whereas data for the dependent variable were quantitative.

For the quantitative date, correlation analysis was carried out using Pearson correlation coefficient. This was done to test whether there existed independency between compliance with legal and regulatory framework and procurement performance in the public entities in Tanzania. On the other hand regression analysis was used to show the percentage of the total variation of the dependent variable (procurement performance) that can be explained by the independent variable (compliance with rules and regulations) and was assessed using the coefficient of determination (R – Squared) which also is a measure of the goodness of fit of the regression line. Hence in our study, the regression model was $Y = \beta_0 + \beta_1X_1 + \epsilon$, Where;

$Y =$ Performance of the Procurement Function in the Public Entities in Tanzania  
$\beta_0 =$ Constant of the Model  
$\beta_1 =$ The Regression Coefficient  
$\epsilon =$ The Random Error of the Model  
$X_1 =$ Compliance with Procurement Legal and Regulatory Framework

**RESEARCH FINDINGS**

The regression analysis indicated that there is a relationship between procurement performance in the public entities in Tanzania and compliance with procurement legal and regulatory framework. Based on the results as shown in table 4.1 below, the coefficient of determination (R- squared) and the correlation coefficient (r) reveal the degree of association between the dependent and independent variables where $r = 0.303$ and $R – Squared = 0.092$. This indicates that there is a moderate linear relationship between compliance with procurement legal and regulatory framework and the performance of procurement function in the Tanzanian public entities. In simple terms, compliance with rules and regulations only explains 9.2% of the variability of the procurement performance in the public entities in Tanzania.

**Table 4.1 Model Summary for Compliance with Procurement Rules and Regulations**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.303(^a)</td>
<td>.092</td>
<td>.065</td>
<td>.747</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Compliance with Rules and Regulations
Analysis of variance (ANOVA) was carried out and its results presented in table 4.2 below. The ANOVA test indicates that compliance with procurement rules and regulations statistically significantly predicts the procurement performance in the Tanzanian public entities, F(5,171) = 3.450, p< 0.05, R-Squared = 0.092.

Table 4.2 Analysis of Variance (ANOVA) for Compliance with Rules and Regulations

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>9.626</td>
<td>5</td>
<td>1.925</td>
<td>3.450</td>
<td>.005b</td>
</tr>
<tr>
<td>Residual</td>
<td>95.436</td>
<td>171</td>
<td>.558</td>
<td>.558</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>105.062</td>
<td>176</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. Predictors: Compliance with Procurement Rules and regulations

Finally, tables 4.3 shows that the coefficient for “compliance with rules and regulations” is 0.471 and the t-test value is 2.634 and this coefficient is Significant (p- value = 0.009 < 0.05). These results suggest that, the procurement performance level increases by 47% when there is an optimal compliance with rules and regulations. From the same results, the variable “Compliance with rules and regulations” is significant (t = 2.634, p- value = 0.009), indicating that there is a linear relationship between the score the department obtains and the way they comply with rules and regulations.

Table 4.3 Coefficient for Compliance with rules and Regulations

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.630</td>
<td>.545</td>
<td>4.822</td>
<td>.000</td>
</tr>
<tr>
<td>Compliance with Procurement</td>
<td>.471</td>
<td>.179</td>
<td>.302</td>
<td>.009</td>
</tr>
<tr>
<td>Rules and Regulations</td>
<td></td>
<td></td>
<td>2.634</td>
<td></td>
</tr>
</tbody>
</table>

The above results are in agreement with previous studies conducted by Eyaa and Oluka (2011), Gelderman et al., (2006) and Amayi & Ngugi (2013) in which there is a consensus that performance of the procurement function significantly correlates with the level of compliance with the procurement laws and rules.

CONCLUSION

The regression analysis indicated a positive linear relationship between compliance with rules and regulations (legal and regulatory framework) and performance of the procurement function in public entities. The coefficient for “compliance with rules and regulations” is 0.471 and the t-test value is 2.634 and this coefficient is significant (p – value =0.009 < 0.05). The implication here is that, 47% of the variation in performance of the procurement functions in public entities was explained by the level of compliance with procurement rules and regulations attained by respective entities. The presented results are in tandem with the descriptive analysis which indicated that
majority of the interview respondents, 94.4% were of the opinion that compliance with procurement rules and regulations had a significant effect on performance of the procurement function in public entities in Tanzania. As observed by previous studies, for compliance with public procurement law and regulations, focus need to be placed on improving familiarity with the procurement procedures amongst procurement staff and other personnel involved in the procurement process in public entities. To achieve this, the study recommends that training workshops on procurement law and regulations should be arranged and attended by all those involved in the procurement process within the entity.

REFERENCES


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