Factors Affecting Procurement Performance: A Case of Ministry of Energy

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Abstract

Public Procurement has increasingly become prominent in the print and electronic media underlining how public entities handle the entire process. Despite its importance, limited scientific research has been undertaken to examine the factors that influence procurement performance in public institutions in Kenya. This study aimed to ascertain the determinants of procurement performance in public entities a case of Ministry of Energy. Specifically the study sought to establish the impact of procurement planning on procurement performance; ascertain the influence of resource allocations on procurement performance; discern the impact of staff competency on procurement performance and finally reveal the extent to which contract management in the procurement cycle affects procurement performance.

The study was conducted through a descriptive design using a cross sectional survey within Kenya’s Ministry of Energy workforce at the Nairobi head office. The study employed purposive sampling to select the sample and sample elements. This resulted to a sample size of 72 staff. A semi structured questionnaire as a data collection instrument was used. The field data was statistically analyzed using descriptive statistics and narrative summary analyses. Findings indicate that procurement planning has a significant impact on procurement performance.

From the study conclusions are made. First the model depicts that Planning accounts for 26.9% of variations in procurement performance, second resource allocation accounts for 17.2%, third, staff competency accounts for 20.1 % and lastly contract management accounts for 23.3% of variations in procurement performance.

Key words: Procurement Cycle, Procurement Performance, Efficiency and Effectiveness.

1. Introduction

Kabaj (2003) contends that an efficient public procurement system is vital to the advancement of African countries and is a concrete expression of their national commitments to making the best possible use of public resources. Equally, Kakwezi and Nyeko (2010) argues that the procurement departments of public entities in Uganda are faced with the problem of not having enough information about the procurement procedure, its inputs, outputs, resource consumption and results, and are therefore unable to determine their efficiency and effectiveness. This implies that such a problem requires establishment of clear procurement procedures and performance standards. Performance standards when adopted can
provide the decision-makers in the procurement department with unbiased and objective information regarding the performance of the procurement function.

In Uganda, procurement and disposal planning are central to proper procurement management. Public Procurement and Disposal of Public Assets (PPDA) Regulation 96(1) provides that a user department shall prepare a multi-annual, rolling work plan for procurement based on the approved budget, which was submitted to the Procurement and disposal unit to facilitate orderly execution of annual procurement activities.

Rotich (2011) admits that the evaluation or measurement of procurement performance has always been a vexing problem for procurement professionals. He asserts that traditionally, firms concentrate on analyzing their own internal trends which does not portray the true picture on how they compare well with competitors. Such an approach ignores what the competitors are doing. Lenders (1997) reveals that a firm does not wish to make known to its competitors how or what it is doing for obvious competitive reasons. This has been the case in the public sector where procuring entities have not been making available their procurement data due to the sensitive nature of the data.

On the other hand, Baquero (2005) argues that traditional government contracts worldwide have tended to focus on inputs rather than outputs. He suggests that the focus should instead be on what projects can deliver rather than how much the project costs which calls for high level of performance management in the entire process.

In Kenya, to manage effectively and more efficiently the procurement process, procuring entities through the existing legal framework are required to firstly consolidate departmental procurement plans to provide the entity’s corporate procurement plan which before its implementation must get the accounting officer’s approval.

Industry Manual, (2008) counsels that a procurement plan is an instrument for implementation of the budget and should be prepared by the user departments with a view to avoiding or minimizing excess votes in the entities’ budgets and to ensure that procurements do not proceed unless there are funds to pay for them. This implies that all procurement plans must be well integrated into the budget process based on the indicative budget as appropriate and in compliance with the procurement law.

Agreeably Mamiro (2010) in his findings underscores these facts and concludes that one of the major setbacks in public procurement is poor procurement planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of skills of procurement staff responsible for procurement. Similarly, Kakwezi and Nyeko (2010) argue that procurement performance is not usually measured in most PEs as compared with the human resource and finance functions. They conclude in their findings that failure to establish performance of the procurement function can lead to irregular and biased decisions that have costly consequences to any public procuring entity. Therefore, this study was conceived by the limited scientific literature documenting the relationship between procurement performance and factors such as planning, resource allocations, staff competency and contract management more specifically at Ministry of Energy.

1.1 Objective of the Study

The objective of this study was to investigate the factors affecting procurement performance a case of Ministry of Energy.
1.2 Conceptual Framework

The study attempts to establish factors that influence procurement performance at the Ministry of Energy. The aspects of procurement planning, resources allocation, staff competency and contract management are the independent variables while procurement performance is the dependent variable.

The conceptual can be summarized in figure 1.3

**Figure 1.3 Conceptual Framework**

![Conceptual Framework Diagram]

**Independent Variables**

(Source: Triantafillou, 2007)

3. Methodology

3.1 Introduction

This chapter explains the research design and methodology of the study and it highlights design variables and provides a broad view of the description and selection of the target population, sampling technique, sampling size and procedure for data collection and data analysis. The procedures the study adopted to attain acceptable validity of the research is also explained.
3.2 Research Design

The descriptive design was employed in the study. The design was used to describe the characteristics of the independent variables (procurement planning, resource allocation staff competency and contract management). This was appropriate to obtain information concerning the current status of the phenomenon to describe what the current situation is with respect to the variable of the study.

Ghauri and Gronhaug (2005) asserts that in descriptive design the problem is structured and well understood a fact that Mugenda and Mugenda (2003) agrees that descriptive design is most preferred because it gives a report on things as they actually are.

3.3 Target Population

The Ministry of Energy with a work force of about 240 employees is one of the 18 ministries in the Republic of Kenya. According to Sekaran, (2005), population is a group of individuals, objects or items from which samples are taken for measurement or it is an entire group of persons, or elements that have at least one thing in common. The study targeted the employees of MOE headquarters in Nairobi only.

3.4 Sampling Frame

The purpose of sampling was to gain an understanding about some features or attributes of the whole population based on the characteristics of the sample. This study used purposive sampling. This method exposes the researcher to various stakeholders who have different experiences with the issues of the study. The selection criteria were based on the number of managers per function and in this study they were above 72 respondents.

3.5 Sample and Sampling Technique

The purpose of sampling was to gain an understanding about some features or attributes of the whole population based on the characteristics of the sample. A sampling frame is the list of all the items where a representative sample was drawn for the purpose of research. In this study, a sample size of 72 employees and consultants was used for the survey.

Mugenda and Mugenda, (2003) asserts that sampling is that part of the statistical practice concerned with the selection of individual or observations intended to yield some knowledge about a population of concern, especially for the purposes of statistical inferences. They advise that a researcher would have to use 30% of the total target population as a sample size for it to be accepted as a good representative sample.

All the respondents had sufficient knowledge on how performance of the procurement function could influence the procurement process.
Table 3.1 Sample Size and sampling Frame

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Ministry of Energy Departments</th>
<th>Target Population</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Administration</td>
<td>38</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Human Resources Management</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Accounts</td>
<td>28</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Procurement</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Internal Audit</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Finance</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Petroleum Energy Development</td>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Geo- Exploration</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Human Resources Development</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Central Planning and Project Monitoring Unit</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Renewable Energy</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Electrical</td>
<td>23</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>ICT</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Energy Consultants</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total target sample</td>
<td>240</td>
<td>72</td>
</tr>
</tbody>
</table>

Source: Human Resources Database Ministry of Energy

3.6 The Instruments

The data collection instrument to be used was a Questionnaire which was designed using the variables identified as important for meeting the survey objectives. A closed-ended and open-ended questionnaire was administered to the respondents. The questionnaire was used since it was easy to administer and with data obtained easy to analyze, Mugenda and Mugenda (2003).

3.7 Data Collection Procedures

The questionnaire was administered using a drop and pick later method. The respondents in the questionnaire were 72 employees and consultants. (Please see Appendix 1 for details of the Data Collection Instrument).

The primary source of data collection method used in the study included use of questionnaire that was used to source for crucial information from the Ministry’s authorities. The questionnaire was both open and closed ended questions in order to enable effective data collection filled in the questionnaire. The secondary data was attained from the written materials which included the journals magazines, and other past studies and other relevant books. This enabled the researcher to compare the data from the questionnaires with the written materials. This helped to enable effective data collection and analysis from Ministry of Energy

3.8 Pilot Tests

The Research instrument was pre–tested to increase the validity of the responses. Mugenda and Mugenda (2003) suggest that pre-testing allows errors to be discovered. Expert validity views and suggestions of the supervisors’ initially incorporated in the questionnaire and then Pre-testing was done on 5 respondents
however these respondents were not included in the study sample. As a result of the pilot test, changes in words selection and instructions made to the questionnaire.

Regular cross checking and follow ups were done to ensure accuracy, relevance, completeness, consistency and uniformity of the data collected.

3.9 Processing and Analysis

Sekaram, (2003) asserts that there are three objectives in data analysis; getting a feel for the data, testing the goodness of the data, and answering the research question. He notes that establishing the goodness of data lends credibility to all subsequent analysis and findings because it measures the reliability and the validity of the measures used in the study.

After gathering data from questionnaire schedules, they were checked adequately for reliability and clarification. The data was analyzed using quantitative techniques, whereby the findings was presented in the form of frequency distribution tables and pie charts while qualitative techniques was incorporated in the study to facilitate description and explanation of the study findings. By so doing this created good understanding of the study findings.

The data collated was entered into a computer and analyzed using Statistical Package for Social Sciences (SPSS Version 16). The software packages enabled the researcher to analyze the data into percentages, means and standard deviations.

First, a factor analysis on both the dependent and independent variable items was conducted upon which reliability analysis for the retained items was computed. Second, correlation coefficients between procurement performance and procurement cycle elements retained from factor analysis was computed to explore possible strengths and direction of relationships. Third, multiple regression analysis was conducted to give various outputs like the model summary, the ANOVA table, and coefficients results among others was used to make interpretations and discussions of the study and upon which conclusions were drawn. The results were presented in form of frequency tables, pie charts and bar graphs.

4.0 Research Findings and Discussions

4.1 Response Rate

The study distributed 86 questionnaires to sampled staff working at the Ministry of Energy headquarters. Out of those, 72 sample respondents filled in and returned the questionnaire while 14 respondents did not return the questionnaire contributing to 84% response rate. This commendable response rate was attributed to the data collection procedure, where the researcher personally administered questionnaires and waited for respondents to fill in, and picked the questionnaires once fully filled. The response rate demonstrates a willingness of the respondents to participate in the study.
4.2 **Demographic Information**

4.3.1 **Gender of the Respondents**

The study sought to find out the gender of the respondents. According to the findings, 62.5% of the respondents indicated that they were male while 37.5% of the respondents indicated that they were female. The results were as shown in Table 4.1.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>45</td>
<td>62.5</td>
</tr>
<tr>
<td>Female</td>
<td>27</td>
<td>37.5</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>100</td>
</tr>
</tbody>
</table>

4.3.2 **Age Bracket of the Respondents**

The study results reveal that 50% of the respondents were aged between 36 and 45 years, 29% of the respondents indicated that they were aged between 26 and 35 years while 21% of the respondents indicated that they were aged between 46 and 55 years. These findings indicate that majority of the employees at MOE are middle aged and elderly. This implies that these are experienced employees who could have given the relevant information to the study area. The results were as shown in Chart 4.2

4.3.3 **Academic Qualification**

The study results reveal that, 25% of the respondents had acquired post graduate degrees while 60% of the respondents indicated had acquired university degrees and 15% had college diplomas. These levels of...
distribution of academic qualifications indicate that the respondents could give responses that are factual. The results are as shown in Chart 4.3

Chart 4.3: Academic Qualifications

4.3  Planning and Procurement Performance

This study looked at the effect of procurement planning on the performance of the ministry of Energy. It was hypothesized in the study that procurement planning positively affects the performance of the ministry.

4.4.1  Preparation of Annual Procurement Plans

A procurement plan describes and documents all of the purchases from outside suppliers that will be needed to support the needs of a particular department. A department may need computers, paper or other supplies depending on the tasks of the department. Outlining the needs of the project and how the supplies will be procured allow for adequate budget and proper planning.

Annual procurement plans draw departments’ early attention to potential procurement opportunities through a strategic procurement outlook statement, supported by details of planned procurements. Because of this, the study sought to find out whether the departments prepared annual procurement plans. 65% of the respondents in the study indicated that the departments prepared annual procurement plans. 86% of them further indicated that the procurement plans were prepared in a participatory manner and in line with the goals set.

4.4.2  Frequency of Formulation of Procurement Plans

The study sought to find out how frequent the procurement plans were formulated in the department. The results revealed that 61% of the respondents indicated that procurement plans in the department impacted positively on procurement performance while the rest (39%) of them indicated that the procurement plans did not affect procurement performance. This is also confirmed by Rotich (2011). Results indicated that procurement plans are formulated and reviewed bi-annually. This brings focus and accountability in the procurement process which enhances efficiency and effectiveness of the procurement function. Equally, Mamiro (2010) points out that one of the major setbacks in public procurement is poor planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of the skills of staff responsible for procurement.

4.4.3  Procurement Plans influence Procurement Performance

The respondents stated that the procurement plans influenced procurement plans in the sense that they provided focused and efficient utilization of the available resources, helped in budgeting and planning and therefore with adequate provision of funds due to procurement plans, performance is assured. More so,
the respondents indicated that procurement plans helped to know what to buy, when, how and using which method of procurement.

### Table 4.2 Formulation of the procurement plans in the department

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annually</td>
<td>44</td>
</tr>
<tr>
<td>Bi-annually</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
</tr>
</tbody>
</table>

The results revealed that 61% of the respondents formulated the procurement plans in the department annually while the rest (39%) of the respondents indicated that the procurement plans in the department were formulated bi-annually.

#### 4.4 Resource Allocation and Procurement Performance

The study sought to find out whether the funds allocated to the departments for procurement were adequate. From the findings, 87% of the respondents indicated that the funds allocated to the departments for procurement were largely inadequate with the rest 13% indicating that they were adequate.

#### Chart 4.4 Resource Allocation

The respondents further indicated that funds allocation for procurement influence procurement performance to a large extent.

#### 4.5.1 Resource Confirmation and Resource Allocation

The study sought to find out how resource confirmation and resource allocation for user requirements in the ministry influence procurement performance for the department and to the whole ministry. From the findings, the respondents indicated that resource confirmation and resource allocation helps make procurement effective when carried out appropriately.

#### 4.5 Staff Competency and Procurement Performance

The study sought to find out whether the procurement staff had the necessary skills and experience to carry out procurements effectively and whether staff competencies influence procurement performance.

From the findings, 34% of the respondents indicated that the procurement staff had the necessary skills and experience to carry out procurements effectively and that the staff competencies influence procurement performance to a large extent.

The study reveals that procurement staff competencies affect procurement performance both for procurement unit and to the whole ministry in other words the study reveals that experienced staff carry out duties in a professional manner and reduces wastage of resources. Moreover, competent staff are
effective, efficient and provide solutions to the procurement problems while incompetent staff would be
ineffective and inefficient thus contributing to poor performance for the ministry.

Finally the respondents indicated that effective and efficient procurement process can only be achieved by
proper planning by competent staff else there would be flaws in the process. Competent staff would
ensure that items services are procured as and when the need is expected.

4.6  Contract Management and Procurement Performance

The study sought to find out whether contract management influences procurement performance. From
the findings, 71% of the respondents indicated that contract management influences procurement
performance to a great extent while 29% of the respondents indicated that contract management did not
influence procurement performance. 42 % of the respondents indicated that there were delays in payments
to suppliers and that this affected greatly on their service delivery. The study further sought to find out
whether internal control mechanisms performed before payments to contractors are effected. 40%
indicated that there was lack of proper controls in management of contracts and that the user was left
alone to manage and monitor projects. The study also found out that 54% of the respondents were not
aware of any project progress reports filed with management

The study reveals that contract management entails planning, organizing, control and directing payments.
The respondents added that to avoid delays in supply and provision of services, timeliness have to be
respected. Work plans and contract periods have to be respected since most projects would have overruns.
The study sought to find out whether the established budget allocations for contracts and contract activity
timeliness are respected. From the findings, all the respondents indicated that the established budget
allocations for contracts and contract activity timeliness are respected.

4.7  Inferential Analysis

To establish the relationship between the independent variables (Planning, resource allocation, staff
competency and contract management) and the dependent variable of the study, an inferential analysis
which involved a coefficient of determination and a multiple regression analysis were carried out. The
Inferential analysis was utilized in this study to determine if there was a relationship between the
variables, as well as the strength of that relationship. The inferential statistics analysis aimed to reach
conclusions that extend beyond the immediate data alone between the independent variables in this study
which included Planning, resource allocation, staff competency and contract management.

4.8.1  Regression Analysis

In addition, the study conducted a multiple regression analysis so as to determine the influence of ICT
innovations on performance of Ministry of Energy Multiple regression is a statistical technique that
allows the study to predict a score of one variable on the basis of their scores on several other variables.
The main purpose of multiple regressions is to learn more about the relationship between several
independent or predictor variables and a dependent or criterion variable.

<table>
<thead>
<tr>
<th>Table 4.5: ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
The F critical at 5% level of significance was 3.23. Since F calculated is greater than the F critical (value = 5.455), this shows that the overall model was significant. From table 4.5 above, the significance value is 0.024 which is less that 0.05 thus the model is statistically significant in predicting how Planning, resource allocation, staff competency and contract management affect the procurement performance at the Ministry of energy.

Table 4.6: Significance of the Variables in the Model

<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></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.026</td>
<td>.733</td>
<td>2.127</td>
<td>.000</td>
</tr>
<tr>
<td>Planning</td>
<td>.269</td>
<td>.225</td>
<td>.202</td>
<td>3.081 .293</td>
</tr>
<tr>
<td>Resource allocation</td>
<td>.172</td>
<td>.155</td>
<td>.147</td>
<td>2.578 .433</td>
</tr>
<tr>
<td>Staff competency</td>
<td>.201</td>
<td>.222</td>
<td>.016</td>
<td>2.960 .939</td>
</tr>
<tr>
<td>Contract management</td>
<td>.233</td>
<td>.153</td>
<td>.232</td>
<td>3.229 .191</td>
</tr>
</tbody>
</table>

The study conducted a multiple regression analysis to determine the relationship between independent variables and dependent variable. The regression equation was

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \alpha \]

Where \( \beta_0 \) is the regression intercept; \( \beta_1 - \beta_4 \) are the regression coefficients while \( Y \) is the dependent variable (procurement performance) \( X_1 \) is the planning independent variable, \( X_2 \) is the Resource allocation independent variable, \( X_3 \) is staff competency independent variable and \( X_4 \) is contract management.

From the regression equation established, taking all the factors (Planning, resource allocation, staff competency and contract management) constant at zero, the procurement performance at the Ministry of Energy would be 3.026.

Further, if all the other variables are kept constant, a unit increase in procurement planning will lead to a 0.269 increase in procurement performance at the Ministry of energy. A unit increase in Resource allocation will lead to a 0.172 increases in procurement performance at the Ministry of Energy, a unit increase in staff competency will lead to a 0.201 increase in procurement performance at the Ministry of Energy, while a unit increase in contract management will lead to a 0.233 increase in procurement performance at the Ministry of Energy. These results imply that procurement plans contribute more to the procurement performance at the Ministry of Energy followed by contract management then Resource allocation, while staff competency contributes the least to procurement performance at the Ministry of Energy.

At 5% level of significance and 95% level of confidence, planning strategies had a 3.081 level of significance, resource allocation strategies showed a 2.578 level of significance, Staff competency strategies showed a 2.960 level of significant and contract management strategies had a level of significance of 3.229. Hence the most significant factor is planning strategies. The t critical at 5% level of significance at \( k = 4 \) degrees of freedom is 2.127. Since all t calculated values were above 2.127 then all the variables were significant in explaining the performance.
4.8.2 Spearman’s Rank Correlation Coefficient

To quantify the strength of the relationship between the variables, the researcher used spearman’s coefficient of correlation. The researcher used the spearman’s coefficient of correlation (p) to study the correlation between the study variables and the findings were as in the table below.

Table 4.3: Correlation Coefficient of the Model

<table>
<thead>
<tr>
<th></th>
<th>Procurement Performance</th>
<th>Planning</th>
<th>Resource Allocation</th>
<th>Staff Competency</th>
<th>Contract Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement performance</td>
<td>1</td>
<td>.268</td>
<td>.195</td>
<td>.130</td>
<td>.230</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.060</td>
<td>.174</td>
<td>.927</td>
<td>.108</td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>1</td>
<td></td>
<td>.183</td>
<td>.478</td>
<td>.259</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.205</td>
<td></td>
<td>.020</td>
<td>.069</td>
<td></td>
</tr>
<tr>
<td>Resource allocation</td>
<td>1</td>
<td></td>
<td>.272</td>
<td>.439</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.056</td>
<td></td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff competency</td>
<td>1</td>
<td></td>
<td></td>
<td>.239</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td>.094</td>
<td></td>
</tr>
<tr>
<td>Contract management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a positive correlation between procurement performance and planning with a correlation figure of 0.268, it was clear that there was a positive correlation between the procurement performance and resource allocation as shown by a correlation figure of 0.195, it was also clear that there was a positive correlation between the procurement performance and staff competency with a correlation figure of 0.130, it was also clear that there was also a positive correlation between procurement performance and contract management with a value of 0.230. This shows that there was positive correlation between procurement performance and planning, resource allocation, staff competency and contract management.

4.8.3 Coefficient of Determination

The coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (performance) that is explained by all the four independent variables (Planning, resource allocation, staff competency and contract management).

Table 4.4: Coefficient of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.708</td>
<td>.875</td>
<td>.839</td>
<td>.633</td>
</tr>
</tbody>
</table>

The model’s four independent variables (planning, resource allocation, staff competency and contract management) that were studied explain only 87.5% of the procurement performance at the Ministry of Energy as represented by the R². This therefore means that the four independent variables only contribute about 87.5% to the procurement performance at the Ministry of Energy while other factors not studied in
this research contribute 12.5% of the procurement performance at the Ministry of Energy. Therefore, further research should be conducted to investigate the other factors (12.5%) that affect performance.

5. Summary, Conclusions and Recommendations

5.0 Summary of the Findings

Procurement function plays a key support role in the operations of the Ministry. The process must be well thought through action plans which are not static. With proper monitoring of projects the Ministry is assured of efficient and effective service delivery.

The main purpose of the study was to establish factors affecting Procurement performance at the Ministry of Energy. The study was conducted through descriptive design with a target population of 72 respondents at the Ministry’s headquarters in Nairobi. Data was collected using a structured questionnaire. The four independent variables only contribute about 87.5% to the procurement performance at the Ministry of Energy while other factors not studied in this research contribute 12.5% of the procurement performance at the Ministry of Energy.

From the findings, most of the respondents indicated that the most important factor is procurement planning followed by contract management. This was because good plans result to effectiveness and efficiency in attaining projected results. However, 7% of the respondents indicated that without staff competency the budget allocation and contract management will be useless. The summary of findings on each variable follows:

5.2.1. Impact of Planning on Procurement Performance

The first objective was to establish the impact of Procurement planning on procurement performance. The results revealed that 61% of the respondents indicated that procurement plans in the department impacted positively on procurement performance while the rest (39%) of them indicated that the procurement plans did not affect procurement performance. This is also confirmed by Rotich (2011).

Results indicated that procurement plans are formulated and reviewed bi-annually. From the regression model, a unit increase in planning will lead to a 0.269 increases in procurement performance at the Ministry of Energy. This implies that planning accounts for 26.9 % of variations in procurement performance.

Basheka, (2008) in his findings concludes that planning is a process that consists of many steps and the bottom line is that planning is not concerned with future decisions but rather with the future impact of decisions made today.

The results further revealed that the departments prepared annual procurement plans and that the procurement plans were prepared and the goals set participatory. Procurement plans therefore influence procurement performance in the sense that they provide focused and efficient utilization of available resources, help in budgeting and planning and therefore with adequate provision of funds due to procurement plans, performance is assured.

5.2.2. Effect of Resource Allocations and Procurement Performance

From the findings, 87% of the respondents indicated that the funds allocated to the departments for procurement were largely inadequate with the rest 13% indicating that they were not adequate. The respondents further indicated that funds allocation for procurement influence procurement performance to a large extent. Even though there was inadequacy of funds allocated to the departments for procurement,
resource confirmation and resource allocation helps make procurement effective when carried out appropriately. From the regression model, a unit increase in Resource allocation will lead to a 0.172 increases in procurement performance at the Ministry of Energy which implies that resource allocations accounts for 17.2 % of variations in procurement performance.

5.2.3. Staff Competency and Procurement Performance

From the findings, 34% of the respondents indicated that the procurement staff had the necessary skills and experience to carry out procurements effectively and that the staff competencies influence procurement performance to a large extent.

From the regression model, a unit increase in staff competency will lead to a 0.201 increases in procurement performance at the Ministry of Energy which implies that staff competency accounts for 20.1% of variations in procurement performance. Procurement staff competencies affect procurement performance both for procurement unit and to the whole ministry in the sense that experienced staff carry out duties in a professional manner and reduce wastage of resources.

The respondents indicated that effective and efficient procurement process can only be achieved by proper planning by competent staff else there would be flaws in the process. Competent staff would ensure that items services are procured as and when the need is expected. Lysons and Gillingham, (2003) confirms this indicating that procurement personnel should be knowledgeable about specifications so as to be able to secure value for money for their employers and play their role of intermediaries between the user and the supplier.

5.2.4. Contract Management and Procurement Performance

Finally, the study found out that the established budget allocations for contracts and contract activity timelines are respected as indicated by all the respondents. 71% of the respondents indicated that contract management influences procurement performance to a great extent and that contract management entails planning, organizing, control and directing payments. 42 % of the respondents indicated that there were delays in payments to suppliers and that this affected greatly on their service delivery. 40% indicated that there was lack of proper controls in management of contracts and that the user was left alone to manage and monitor projects. The study also found out that 54% of the respondents were not aware of any project progress reports filed with management. From the regression model, a unit increase in contract management will lead to a 0.233 increases in procurement performance at the Ministry of Energy. Implying contract management accounts for 23.3% of variations in procurement performance.

The study further reveals that contract management entails planning, organizing, control and directing payments and when a partial assignment of the contract is completed means contract management affects procurement performance. The respondents added that to avoid delays in supply and provision of services, timelines have to be respected. Work plans and contract periods have to be respected since most projects would have overruns.

5.1 Conclusion

The study concludes that Planning, resource allocation, staff competency and contract management positively affected procurement performance at the Ministry of Energy. The purpose of planning is to be able to utilize the available resources to achieve the overall objective.

Planning explains about 27% of the variations in procurement performance while resource allocation, staff competency and contract management explain 17%, 20% and 23% respectively variations in
procurement performance of MOE. The study further concludes that preparation of annual procurement plans, frequency of formulation of procurement plans and the evaluation of the same contributes to the ministry’s procurement performance.

The most important factor was found to be procurement planning followed by contract management as pointed out by most of the respondents. This was because good plans result to effectiveness and efficiency in attaining projected results. Mamiro (2010) agrees with these findings and concludes that one of the major setbacks in public procurement is poor planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of the skills of staff responsible for procurement.

The study found out that there was poor contract management at the Ministry characterized by delays in payments to suppliers which hampers greatly on their service delivery, lack of proper controls in management of contracts where the user was left alone to manage and monitor own projects without involvement of procurement function. Similarly, the study found out that there were no project progress reports filed with management.

5.2 Recommendation

This study established that planning positively affects procurement performance to a large extent. The study recommends that plans are not static and that preparation of annual procurement plans should be participatory, frequently reviewed so as to improve on the Ministry’s procurement performance. Equally, management of the procurement process should be administered by qualified, competent and experienced procurement professionals. This will not only help maintain good procurement standards but also will help achieve high levels of efficiency and effectiveness. In addition, to avoid delays in supply and provision of services, timelines have to be respected since most projects would have overruns. For the success of the contracts under execution, the management of Ministry of Energy should ensure that proper mechanisms for project monitoring and evaluation are put in place with the input of procurement personnel and the user department with progress reports thereon escalated for necessary action.

5.3 Recommendations for Further Research

This study looked at four independent variables (planning, resource allocation, staff competency and contract management) which according the study contributes to 87.5% of the variations in procurement performance at the Ministry of Energy. The researcher recommends further research to investigate the other factors that affect procurement performance. Equally, further research should be carried out in other PEs to ascertain whether these findings are universal and research on procurement performance measurement should be carried out as this was not the objective of this study.
References


