FACTORS AFFECTING SUSTAINABLE PROCUREMENT IN THE PUBLIC SECTOR IN KENYA: A CASE STUDY OF STATE CORPORATIONS IN THE MINISTRY OF INDUSTRIALIZATION AND ENTERPRISE DEVELOPMENT

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Abstract: Sustainable procurement is involving issues touching on social and ethical purchasing, minimizing environmental impact through the supply chain, delivering economically sound solutions and good business practice. The study aimed at assessing the effectiveness of implementation of sustainable procurement in public sector; case of state corporations in the Ministry of Industrialization and enterprise development. The study targeted employees from the procurement department in seven state corporations under the Ministry Specifically, the study assessed how perceived costs, sourcing of supply and top management support influence sustainable procurement, what the sustainability impacts and how to implement sustainable procurement practically. The finding is also used by the public procurement regulatory authority with regard to regulation, framework and policies that will help in operations of public procurement. The finding make several contributions to the field of policy makers, practitioners, scholars and researchers interested in sustainable procurement in the public sector.

The study used descriptive study design using a target population from state corporations in the ministry of industrialization where structured questionnaire will be used. Quantitative data was analyzed through statistical techniques and was generated using statistical package for social sciences (SPSS) and data obtained will be communicated through pie charts, tables and bar graphs. The research draws on the four theories Resource based, transactional, institutional and transformational theories and existing sustainable procurement literature. From the study findings, this study concludes that perceived cost negatively affect Purchasing of sustainable products, Environment friendly products and Policies implementation on environmental degradation through monetary constraint and purchasing cost. The study concludes further that top management support purchasing of sustainable products, Environment friendly products and Policies implementation on environmental degradation through close collaborative relationship, organizational policies and resources allocation. Furthermore, the study made a conclusion that Staff Involvement enhances Purchasing of sustainable products, Environment friendly products and Policies implementation on environmental degradation through competencies of senior management, staff motivation and staff training. Finally, the study concluded that organizational culture enhances purchasing of sustainable products, environment friendly products and policies implementation on environmental degradation through staff training, structures and attitudes. This study recommends that while sustainable procurement practices cost more, public sector should focus on the lifecycle costs, a sustainable product may cost more initially, but a longer lifespan and lower maintenance cost means the total cost of ownership is lower than that of a non-sustainable product. This study recommends that the government and other stakeholders should ensure that there is structural and organizational change to support implementation of sustainable procurement practices, organizations should also improve on relationships between management and stakeholders so as to ensure top level management support. Since staff involvement plays a big a role in promoting adoption of sustainable procurement practices, the study recommends that the organization should ensure that its staff has sufficient special techno-economic knowledge and openness to new, effective methods to ensure, internal expertise on sustainable procurement practices topics when assessing tenders for sustainable procurement practices implementation.
Through training and communication. Since staff involvement plays a big role in promoting adoption of green procurement practices, the study recommends that the organization should ensure that its staff has sufficient special techno-economic knowledge and openness to new, effective methods to ensure, internal expertise on green procurement practices topics when assessing tenders for green procurement practices implementation through training and communication.

**Keywords:** Effectiveness of Procurement, Procurement Act, and Public Procurement.

1. **INTRODUCTION**

Governments spend around 12% to 30% of their GDP buying goods, services, and infrastructure. In 2017, Kenya spent 25.5% of GDP on purchase of goods and services according to the annual statistical report on United Nations procurement 2012. This clearly indicates the power of the public sector to pue as an enabler in ensuring markets transition towards a greener economy. It is important to note however, that the current world consumption and production levels are 25 percent higher than the earth’s sustainable carrying capacity. Public procurement is the process that public entities, such as national and county governments and their departments, go through to acquire or purchase goods and services. Each year, government departments budget for staff, office expenses, and public goods. These amenities include public buildings, transport infrastructure and public services (water supply, sewage, dams), and other, long term, physical assets and facilities. Public entities therefore pre-select individuals and firms that have the ability to provide the goods and services required at a reasonable price within required timelines (Belfit et al., 2011).

**Statement of the Problem:**

In the Kenyan state corporation’s adoption of sustainable procurement practices has been a slow pace. According to the Public Procurement Oversight Authority (PPOA, 2009) most of the tendered products and services in many public institutions have a mark-up of 60 percent on the market price. The inefficiency and ineptness of the overall implementation of the sustainable procurement practices in many public institutions contribute to over Ksh. 50 million losses annually (Tom, 2009).

Li & Geiser (2009) studied different approaches in public procurement which support sustainable development. The research contributed in identifying where procurers have adopted initiatives to address all aspects of sustainability which include encouraging first-tier suppliers to make use of small local businesses.

Khatra, (2012). Study on “Green Supply Chain Management and the Performance of the Manufacturing firms in Mombasa, Kenya” sought to identify the green supply chain practices and challenges. He concluded that the practices have a positive impact on Green supply chain in overcoming environmental challenges.

The study therefore seeks to make several contributions to the field of sustainable procurement in public sector. The study will help top management, policy makers, researchers interested in sustainable procurement.

**Objectives:**

1. To examine the influence of perceived costs on the implementation of sustainable procurement in the public sector in Kenya.
2. To establish how top management support influence the implementation of sustainable procurement in the public sector in Kenya.
3. To establish the influence of staff involvement on the implementation of sustainable procurement in the public sector in Kenya.
4. To establish the influence of government laws and regulations on the implementation of sustainable procurement in the public sector in Kenya.

2. **THEORETICAL REVIEW**

**Resource Based Theory:**

The concept of resources includes all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness. The resource-based view of the firm emphasizes that valuable, rare, imperfectly limitable,
and non-substitutable firm’s resources result in competitive advantage (Miles, 2010). The theoretical mainstays are that resources that are entirely controlled or owned by the focal organization should be cultivated in order to enhance their contribution to the organization’s competitive advantage in its industrial context (Kozlenkova, Samaha & Palmatier, 2014).

**Transaction cost economics theory:**

The (TCE) developed by Coase in 1937 has been used to study outsourcing of firm activities. The idea of TCE is to reduce the total costs associated with performing transactions through choosing the most economical governance structure; hierarchy or market. TCE focuses on the organization of transactions that occur whenever a good or service is transferred from a provider to a user across a technologically separable interface. When transactions occur within an organization, the transaction costs can include managing and monitoring personnel and procuring inputs and capital equipment. The transaction costs of buying the same good or service from an external provider can include the costs of source selection, contract management, performance measurement, and dispute resolution (North, 2016). Thus the organization of transactions or governance structure affects transaction costs. The primary objective of TCE is to ensure, efficient transactions and avoidance of waste.

**Institutional theory:**

Another theory that is relevant to this study is the institutional theory, it is relevant in explaining the factors affecting implementation of sustainable procurement. Obanda, (2010). observed that institutional theory is normally used to examine the public procurement from varying perspective. Environment with an institutional theory framework limits the discretion of institutions to engage in certain activities and pressures institutions toward conformity. Institutional theory and its relevance to the sustainable procurement and application to theory development. The theory can be used to clarify the creation of SP across organizations. Institutional theory help provide explanation for institutional decisions and activities. Institutional theory aids our understanding of the pressures for institutions to become more similar, which decreases institutional diversity.

**Transformational Theory:**

Day and Atkinson, (2004) defines procurement transformation as a specific type of organizational change management which focuses on strategies to enable major and long-term improvements to procurement and supply chain processes, activities and relationships for success of transformational procurement, the most logical point is to understand the general issues related to successful organizational change management.

**Conceptual Framework**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government laws and Regulation</strong></td>
<td>Environment</td>
</tr>
<tr>
<td>• Laws and regulation</td>
<td>Economic</td>
</tr>
<tr>
<td>• Harmonization of laws.</td>
<td>Social</td>
</tr>
<tr>
<td><strong>Staff Involvement</strong></td>
<td></td>
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<tr>
<td>• Motivation.</td>
<td></td>
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<tr>
<td>• Training</td>
<td></td>
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<tr>
<td><strong>Top management</strong></td>
<td></td>
</tr>
<tr>
<td>• Culture</td>
<td></td>
</tr>
<tr>
<td>• Incentives</td>
<td></td>
</tr>
<tr>
<td><strong>Perceived costs</strong></td>
<td></td>
</tr>
<tr>
<td>Expertise and training costs</td>
<td></td>
</tr>
<tr>
<td>Financial resources</td>
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</tbody>
</table>
Critique of Literature Reviewed:

Witjes & Lozano, (2016) examined the state of development of national action plans regarding green or sustainable public procurement in the EU, arguing that these are “not only one of the most comprehensive instruments fostering green or sustainable public procurement; they are also the type of instrument applied most often in EU Member States”. Of the 27 EU member states, their analysis showed that only a third of governments had adopted an action plan concerning sustainable public procurement by April 2007, with a further 5 countries having a draft policy concerning sustainable public procurement that hadn’t yet been adopted. Countries with relatively well-developed plans included the Netherlands, Denmark and the United Kingdom, while countries still in the early stages of developing national action plans included Germany, Greece, the Slovak Republic and Malta. If Governments and public organization abide by the draft international standard ISO 204000 and agreements such as the global compact, ISO 14001, EMS, OHSA if adopted will enhance SP as a tool for implementation and monitoring in procurement.

Sustainable procurement can be criticized for the costly products due to availability of the source of supply. The 40% local content in Kenya can be used to ensure cheap local raw material are used for production, on the other hand it can be argued that the cost of labor may push the product prices high. According to Sustainable Procurement Task Force (2006) the main criticism is the cost of sustainable goods and services, looking at the whole life cycle cost, the recycled materials have been an impact on sustainability.

Summary of Literature:

There exist differences across state corporations in the implementation of SP practices and that SP practices have been implemented through various approaches of design and lifecycle approaches. Drivers of SP Practices are perceived costs of SP, sources of supply, Top management support and Government laws and regulations. In conclusion, challenges for implementing SP are inherent and conflicts between SP objective and Independent variables in adoption of SP

Research Gap:

From previous research on SP it is not easy to make comparisons between procurement practices in the private versus the state corporations due to statutory regulations. State corporations are formed for social aspects by the government. Another factor is that there are differences across countries and continents in the public sector which have been documented. In Kenya there is no government policy regarding SP as compared to private sector.

The analysis is cross sectional and therefore provides only a snapshot of sustainable procurement practice in the ministry of Industrialization in study. Future work that extends our analysis to incorporate a longitudinal analysis of changing practice with respect to sustainable procurement would add considerably to our understanding of the processes by which such practices become more embedded in organizations.

3. RESEARCH METHODOLOGY

The research design used in this study was descriptive research design. The target population of this study consisted 237 procurement staff from all state corporations at the Ministry of Industrialization. There are 14 state corporations under the Ministry of Industrialization. The table 3.1 indicates the number of procurement officers from the state corporations in the Ministry of Industrialization. The data collection instrument for this study was a questionnaire. The questionnaire had both open ended questions and a Likert Scale on some questions. The questionnaire was pre-tested with a small representative sample aimed at identifying potential misunderstandings or biasing effects for various questions. The data was coded and thereafter analyzed using descriptive statistics (mainly percentages, mean, variance and standard deviations) and inferential statistics (mainly linear regression models) with the aid of Statistical Package for Social Sciences (SPSS) program and presented using appropriate tables to give a clear picture of the research findings at a glance. A multiple linear regression analysis was performed to test the effect of the independent variables on the dependent variable

Model:

The model was specified as follows: \[ Y = \beta_0 + \beta_{1X1} + \beta_{2X2} + \beta_{3X3} + \beta_{4X4} + \epsilon \]

Where,

\( Y = \) Sustainable procurement

\( \beta_0 = \) Constant
\[ \beta_1, \beta_2, \beta_3, \beta_4 = \text{Beta coefficient} \]

\[ X_1 = \text{Perceived cost} \]
\[ X_2 = \text{Top management} \]
\[ X_3 = \text{Staff Involvement} \]
\[ X_4 = \text{Government law and regulations} \]
\[ \varepsilon = \text{Error term} \]

### 4. REGRESSION RESULTS

Table 4.11: Regression coefficients of the relationship between implementation of sustainable procurement policies in the public sector and the four predictive variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>1.200</td>
<td>0.217</td>
<td>-</td>
<td>4.85</td>
<td>0.00025</td>
</tr>
<tr>
<td>Perceived Cost</td>
<td>-0.293</td>
<td>0.128</td>
<td>-0.266</td>
<td>2.289</td>
<td>0.0002</td>
</tr>
<tr>
<td>Top management</td>
<td>0.340</td>
<td>0.105</td>
<td>0.364</td>
<td>3.242</td>
<td>0.00014</td>
</tr>
<tr>
<td>Staff Involvement</td>
<td>0.309</td>
<td>0.117</td>
<td>0.303</td>
<td>2.637</td>
<td>0.00025</td>
</tr>
<tr>
<td>Government laws &amp; regulation</td>
<td>0.258</td>
<td>0.198</td>
<td>0.154</td>
<td>1.298</td>
<td>0.00019</td>
</tr>
</tbody>
</table>

As per the SPSS generated table above i.e. 4.12, the equation \[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \] becomes:

Where \( Y \) is the dependent variable sustainable procurement practices in public sector

\( X_1 - \text{Perceived Cost} \)
\( X_2 - \text{Top management} \)
\( X_3 - \text{Staff Involvement} \)
\( X_4 - \text{Government laws & regulation} \)

The regression equation above has established that taking all factors into account (perceived cost, staff involvement, top management and government laws & regulation) constant at zero sustainable procurement practices in public sector was 1.200. The findings presented also show that taking all other independent variables at zero, a unit increase in the perceived cost would lead to a 0.293 reduction in the scores of sustainable procurement practices. Further, the findings show that a unit increases in the scores of top management would lead to a 0.340 increase in the scores of sustainable procurement practices in public sector. The study also found that a unit increase in the scores of Staff Involvement would lead to a 0.309 increase in the scores of sustainable procurement practices in public sector. Finally, the study found out that a unit increase in the scores of government laws & regulation would lead to a 0.258 increase in the scores of sustainable procurement practices in public sector. Overall, staff Involvement, had the greatest effect on the sustainable procurement practices in public sector, followed by top management, then Perceived Cost while Government laws & regulation had the least effect to the sustainable procurement practices in public sector.

### 5. CONCLUSION

From the study findings, this study concludes that perceived cost negatively affect Purchasing of sustainable products, Environment friendly products and Policies implementation on environmental degradation through monetary constraint and purchasing cost. The study concludes further that top management support purchasing of sustainable products, Environment friendly products and Policies implementation on environmental degradation through close collaborative relationship, organizational policies and resources allocation. Furthermore, the study made a conclusion that Staff Involvement enhances Purchasing of sustainable products, Environment friendly products and Policies implementation on environmental degradation through competencies of senior management, staff motivation and staff training. Finally, the study concluded that government laws and regulations enhances purchasing of sustainable products, environment friendly products and policies implementation on environmental degradation through staff training, structures and attitudes.
6. RECOMMENDATIONS

This study recommends that while sustainable procurement practices cost more, public sector should focus on the lifecycle costs, a sustainable product may cost more initially, but a longer lifespan and lower maintenance cost means the total cost of ownership is lower than that of a non-sustainable product. This study recommends that the government and other stakeholders should ensure that there is structural and organizational change to support implementation of sustainable procurement practices, organizations should also improve on relationships between management and stakeholders so as to ensure top level management support. Since staff involvement plays a big role in promoting adoption of sustainable procurement practices, the study recommends that the organization should ensure that its staff has sufficient special techno-economic knowledge and openness to new, effective methods to ensure, internal expertise on sustainable procurement practices topics when assessing tenders for sustainable procurement practices implementation through training and communication. Since the study established that the existing regulation limits the ability of the organization to implement sustainable procurement, the study recommends that the government regulation & regulation should formulate adequate and sustainable policies and guide lines that are free from political influence to enhance the implementation of sustainable procurement practices.

REFERENCES


