

Horizontal Public Procurement Practices and Supply Chain Performance in Kenya Owned State Corporations- A public value Perspective

Bonface Matayo Ratemo*

*(Operations and Supply Chain Department, Dedan Kimathi University of Technology Email: ratemobonface@gmail.com)

Abstract:

Public Procurement, which accounts for 15-18 % of the country’s GDP, is a major policy tool which the Kenyan government is using to pursue “horizontal” objectives- of social transformational and development in addition to the “functional” objectives - of obtaining goods, works and services in the best terms. Despite the widespread utilization of public procurement’s “buying power” to realize horizontal outcomes, pertinent literature on supply chain performance has paid much attention to functional aspects of supply chain performance, to the exclusion of horizontal issues. This study sought to determine the relationship between horizontal public procurement practices and supply chain performance in Kenya owned State Corporations using public value theory as analytical framework. Specifically, the study examined the effect of Socially Responsible Procurement, Environmentally Responsible Procurement and Protectionist Public Procurement on Supply Chain Performance of Kenya owned State Corporations. The study employed a positivist research paradigm and a cross-sectional census survey design and targeted the 187 Kenya owned State Corporations. Closed and open ended questionnaires were distributed to procurement practitioners and interview guides were conducted with accounting officers to gather primary data, whereas secondary data was retrieved from existing reports of the public procurement Regulatory Authority website. Descriptive statistics, correlation and multiple regression analysis were used to analyze the data. The results indicated that Socially Responsible Procurement, Environmentally Responsible Procurement, Protectionist public Procurement, and Public Procurement of Innovation had positive and statistically significant effect on supply chain performance. The study had two major implications for theory, and for practice. First, the study revealed the robustness of public value theory as an analytical framework for horizontal public procurement hence further extending the theoretical discourse of the theory. Second, the study showed that pursuit of functional and horizontal objectives in public procurement is critical to supply chain management practice.

Keywords — Horizontal Public Procurement, Public Value, Supply chain Performance

I. INTRODUCTION

Public procurement, hereby referred to as the process by which the public sector purchase products, services and public works (Semple, 2015), accounts for a substantial share of total government expenditure. The huge amounts of money spent in public procurement, which ranges between 15 and 18 per cent of GDP in most countries (OECD 2006b, Frøystad, Heggstad, & Fjeldstad, 2010),

Kenya included, provides government with a lever from which it can create public value. Separate from meeting public procurement’s “functional” objectives - of obtaining goods, works and services in the best terms (Watermeyer, 2011; Priess & Pitschas, 2000) and the need for public procurement to comply with the general law; public procurement is simultaneously used as policy tool to generate

public value through its policy by-products (Staples, 2015; Arrowsmith, 2009, Handler, 2015).

The use of public procurement to generate public value has become acknowledged as a core principle of a modern procurement policy (Stapples, 2015; McCrudden, 2007). Under the public administration paradigm the focus of procurement activities on delivering policy objectives continue to assume a relatively stable and non changing mandate for the public sector. This was first captured by Moore (1995) in his seminal ‘Theory of Public Value’ when he stated that “the reason the public entities exists is to create public value and that the successful practice of public management should increase the public value produced by public sector organizations in both the short and long run”. Since the purpose of the public sector is defined in terms of creating public value (O’Flynn, 2007), then the huge amount of expenditure in public procurement should be viewed as having a potential contribution to the creation of public value. So, rather than purchasing at the lowest price, a public entity might decide to spend more to achieve better whole-of-government outcomes (Semple, 2015; Graells, 2015). Public value theory is an analytical framework that examines the broader societal impact and value generated by public organizations and policies. It focuses on the outcomes and benefits delivered to the public, beyond simply achieving operational efficiency or cost-effectiveness. Public value theory recognizes that public organizations have a responsibility to serve the public interest and create value for society as a whole.

Horizontal public procurement practices (HPPPs) refer to the utilization of public procurement as a means to pursue broader social transformational and developmental objectives, in addition to the functional objectives of obtaining goods, works, and services. It recognizes that public procurement's "buying power" can be leveraged to achieve societal goals, such as promoting social responsibility, environmental sustainability, and

supporting domestic industries. By employing horizontal public procurement practices, governments aim to go beyond transactional aspects and focus on achieving outcomes that benefit society as a whole. This may involve incorporating criteria related to social and environmental responsibility into procurement processes, supporting local businesses and industries, and fostering innovation. The combination of public value theory and horizontal public procurement practices acknowledges the importance of considering the broader impact and value created by public procurement activities. It recognizes that public procurement can be a strategic policy tool for achieving societal goals and driving positive change. By adopting this approach, governments can leverage their procurement processes to generate public value, promote sustainable development, and address societal challenges. This might involve, for instance generating public value through creating local employment opportunities, or promoting equal opportunities for groups that have been disadvantaged, such as women, persons with disabilities, or persons from specific ethnic or other minority groups; increasing production and consumption of environmentally friendly products; improving welfare distribution throughout the country; or stimulating infant or protecting national industry against foreign competition (Arrowsmith, 2010; Helmrich & Jur, 2014)

Such initiatives are normal market behaviours governments use to generate public value through utilization of the purchasing power of public procurement (Harms, Hansen, & Schaltegger, 2012). The use of HPPPs to create public value in procurement is a phenomenon which dates back to the early 19th century. Early studies on horizontal policies dwelt on aspects of working conditions including minimum wages, working time and health and safety standards (McCrudden, 2007), but the scope of horizontal policies has broadened to include working conditions in a narrow sense that encompass a range of policy areas (Scherrer, 2010; Lukošūnienė & Lukošūnas, 2014; Lundberg,

Marklund, Strömbäck, & Sundström, 2015; Loch & Wu, 2014; Aschhoff & Sofka, 2009; Schulten, Alsos, Burgess, & Pedersen, 2012).

Globally, HPPPs have been used to achieve ancillary objectives like support for fair labour conditions, regional development, provision of economic opportunities for disadvantaged groups, stimulating economic activity, protecting national industry against foreign competition, improving the competitiveness of certain industrial sectors, and remedying regional disparities (Arrowsmith, Linarelli & Wallace, 2000; Watermeyer 2000; Ssenoga, 2010, Bolton, 2006; Arrowsmith 2010, McCrudden, 2007; Graells 2015; Helmrich & Jur, 2014). Many countries, including USA, UK, Canada, Brazil, SA, Malaysia, India, Indonesia and the Philippines have used public procurement as a vehicle to achieve objectives of job creation, promotion of fair labour conditions, use of local labour, improvement of environmental quality and the provision of economic opportunities for disadvantaged groups (Govender & Watermeyer, 2001, Bolton, 2006; Thai, 2011, Ssenonga, 2010, McCrudden, 2007, Arrowsmith 2008, Arrowsmith 2010). In Africa, HPPPs have contributed immensely to job creation and employment, strengthening of domestic industries, development, enhancing diversity, securing development aid, stimulating economic activity and protecting national industry against foreign competition (Govender & Watermeyer, 2001, Bolton 2006, Ssenoga, 2006; Ngeno, Namusonge, & Nteere, 2014; Muraguri, 2013)

1.1 Horizontal Public Procurement Practices in Kenya owned State corporations(KoS Cs)

Kenya-owned State Corporations are government-owned entities in Kenya that operate in various sectors and industries. These corporations are established under the State Corporations Act and are primarily responsible for carrying out commercial activities, providing public services, and driving economic development in the country. Kenya-owned State Corporations play a

significant role in the Kenyan economy and are involved in diverse sectors such as energy, transportation, communication, healthcare, agriculture, education, and finance, among others. They are responsible for implementing government policies and delivering essential services to the public. These corporations are typically established to operate independently from the government, although they are still subject to government oversight and regulations. They are expected to generate revenue, operate efficiently, and contribute to the country's socio-economic development (RoK, 2015)

Procurement represents a major share of the Kenya owned State Corporations' (KoSCs) expenditure budget. According to the 2015 National treasury estimates, procurement in majority of KoSCs is the second biggest of expenditure budget after expenditure on staff. For this reason, it has become an important priority (RoK 2015) and it accounts for 12-15 % of the country's GDP. And unlike in other countries where procurement systems are still being developed to address relatively narrow agenda of value or process efficiency, the Kenyan government has gone further to adopt a broader and a more strategic policy (Ngeno, Namusonge, & Nteere, 2014; Marende, 2015, Constitution of Kenya, 2010). As such, the Kenya public procurement system purposes and actions transcend meeting functional objectives, and recognize the equal status of functional and horizontal objectives in public procurement (Chemoiywo, 2014). The legal frameworks that govern public procurement and guide horizontal public procurement practices are anchored in the Kenyan Constitution (Ng'eno, Namusonge, & Nteere, 2014); and Article 227 of the Constitution of Kenya recognizes that public procurement aims to achieving efficiency and equity in the society (RoK, 2010) while the Public Procurement and Asset Disposal Act (2015) operationalize horizontal expectations as outlined in the constitution.

The significant economic role of public procurement provides the government with notable

market power which it continues to use to create public value (Ngeno *et al*, 2014; Korir, Komen, Cherop, & Kihara, 2015). Over the years, there has been growing policy interest in re-orienting public procurements expenditure towards solutions that are protectionist. This is evident through the pivotal role public procurement assumes in the policy debates such as on income distribution, un-employment, regional development, economic marginalization, environmental degradation, resource depletion and persistent global poverty. The high levels of expenditure also provide sound reasons for analyzing the performance of public procurement operations at all levels.

However, despite the widespread utilization of public procurement's "buying power" to realize public value through horizontal objectives, extant research has hardly examined consequences such an approach might have on supply chain performance. The dialogue on the joint pursuit of functional and horizontal objectives in public procurement continues to paint a mixed picture from procurement professionals and academicians. Some scholars consider horizontal public procurement practices as unnecessary, costly, unfair, bureaucratic, discriminative, counterproductive, and detrimental to supply chain performance (McCrudden, 2007). Others express concern over the "uneasy mixture" of public procurement policies whereby cost efficiencies compete with horizontal policy objectives (Pickernell *et al*, 2011) while others draw attention to possible incongruence between the functional and horizontal expectations of public procurement which may ultimately affect supply chain performance (Cabras 2011). Yet, others argue in favour of HPPPs by affirming that "where properly employed, horizontal practices may prove a useful and effective instrument (Arrowsmith 2010, Bolton, 2010, Graells, 2015). These contestations have however, not dissuaded the Kenyan government from using the purchasing power of public procurement to promote public value. This is evident through the pivotal role public procurement

assumes in the policy debates such as on income distribution, un-employment, regional development, economic marginalization, environmental degradation, resource depletion and persistent global poverty.

1.2 Supply Chain Performance in Kenya Owned State Corporations(KoSCs)

Supply chain performance, which is about seeking to answer the fundamental question of whether the procurement system and operations ultimately deliver in accordance with the main objectives set (Watermeyer, 2013), not only assists policy makers to understand how various policy goals interact and how policy impacts on the overall performance of the supply chain systems but also creates a stronger incentives on governments to improve their public procurement systems, help them to set priorities for reform actions in the area of public procurement, monitor progress against the objectives set and can provide valuable information for the assessment of the public expenditure system.

But due to poor levels of performance, supply chain performance in Kenya has attracted great attention from practitioners, academicians and researchers for several decades (Njogu, 2016). In spite of government efforts to improve the public sector, public procurement systems and operations as recent as 2015 are still marred by shoddy works, poor quality goods and services, an indication that all is not okay (Chimwani, Iravo & Tirimba, 2015). Indeed, a casual look into the supply chain performance in KoSCs shows poor performance. This has made supply chain performance researchers to seek deeper analysis in other underlying causes of performance (Marendi, 2015). The prevailing argument is that the complexity of balancing different and sometimes, somewhat contradictory, objectives as required by different stakeholders in public procurement make it difficult to measure supply chain performance in Kenya owned State Corporations (Awino & Marendi, 2015, Rha, 2015).

The public value paradigm largely informs the public procurement in KoSCs where procurement

activities seek to achieve multiple objectives. Procurement professionals are required to pursue functional objectives as well as horizontal objectives in any procurement activity and at the same time ensure that they comply with regulatory frameworks. Public procurement decision makers in KoSCs also face challenges pertaining to propensity to use lowest price tendering, the adversarial nature of relationships between participants, the limited attention given to value generation, linking the procurement to creating community value and the lack of life cycle costing that considers long term economic and environmental factors (Marendi, 2015). Procurement professionals often struggle to balance between horizontal and functional procurement goals such as cost effectiveness, transactional efficiency, transparency and fairness, and being held accountable for an unfavorable procurement outcome (Chimwami, Iravo, & Tirimba, 2014; Try & Radnor, 2007; Turrell, 2014; and Blaug, Horner, & Lekhi, 2014). The public value theory envisages the procurement professionals to go beyond the implementation of policy and adherence to institutional norms, including seeking out opportunities to make significant improvements to the lives of the public (Benington & Moore, 2010).

However, studies conducted in the area of procurement policies in Kenya such as Muraguri(2013); Nawire, Ogolla and Kiarie (2014); Kinoti 2013; Guyo, Gakure and Kibas 2011; Onyinkwa, (2013); Gesuka and Namusonge (2013); Meme (2014); Mugo (2013); and Migosi, Ombuki and Evusa (2014), Hussein and Shalle (2014) have paid much attention to functional aspects of supply chain performance, to the exclusion of horizontal issues. Methodologically, most studies on supply chain performance have either been conceptual in nature (Flynn & Davis, 2014) or purely depended on subjective data (Cabras, 2011, Chimwami, Iravo, & Tirimba, 2014, Davis, 2014, Gesuka & Namusonge, 2013, Nderitu & Ngugi, 2014, Ndiga & Ismail, 2016). This has left an evident knowledge gap, which the study intends to fill by examining

the effects of horizontal procurement practices on performance of state corporations in Kenya using descriptive cross-sectional census survey design.

This study sought to clarify the influence of HPPPS on Supply Chain Performance of Kenya Owned State Corporations. The study specifically sought to:

To assess the relationship between Socially Responsible Procurement and Supply Chain Performance in Kenya owned State Corporations.

To establish relationship between Environmentally Responsible Procurement and Supply Chain Performance in Kenya owned State Corporations.

To assess the relationship between Protectionist Public Procurement and Supply Chain Performance in Kenya owned State Corporations.

The study tested the following hypotheses:

H₀₁: There is no significant relationship between socially Responsible Procurement and Supply Chain Performance in Kenya owned State Corporations.

H₀₂: There is no significant relationship between Environmentally Responsible Procurement and Supply Chain Performance in Kenya owned State Corporations.

H₀₃: There is no significant relationship between Protectionist Public procurement and Supply Chain Performance in Kenya owned State Corporations.

Research Design

Based upon the nature of the research problem and research hypothesis, this research adopted a positivist research paradigm and a cross-sectional census survey design whereby target the 187 Kenya owned State Corporations were targeted for the study. The research explores whether procurement is being utilised strategically. Primary data was

gathered using closed and open ended questionnaires that were distributed to procurement practitioners and interview guides conducted with the Accounting Officers. Secondary data was obtained from existing reports from the Public Procurement Regulatory Authority website. In total, 166 supply chain professionals drawn from various categories of Kenya owned state corporations participated in the research. The study used multiple regression analysis to determine the linear statistical relationship between the independent, moderating and dependent variables of the study. The seven null hypotheses of the study were tested using linear and hierarchical regression models. F-Test was used to test the validity of the model, while (R^2) was used to measure the model's goodness of fit. The regression coefficient was used to describe the results of regression analysis and outline the nature, direction and intensity of the relationships between the variables under study. These tests were carried out at 95 percent significant level ($p < 0.05$).

Findings

1) 4.1 Socially Responsible Procurement and Supply Chain Performance

Ordinary least squares regression was carried out to determine the relationship between SRP and supply chain performance in KoSCs. The regression model $Y = \beta_0 + \beta_1 X_1$ was fitted from the data where X_1 represented SRP and Y denoted supply chain performance. From Table 1, the regression model of X_1 and Y was significant ($F(1,165) = 11.231$, P-value < 0.001) implying that SRP is a valid predictor in the model. The value of R and R^2 were 0.253 and 0.064 respectively. The R value of 0.253 showed that there was a positive linear relationship between SRP and supply chain performance. The R^2 value indicated that the explanatory power of the independent variables was 0.064. This means that 6.4% of the variation in supply chain performance was explained by the model $Y = \beta_0 + \beta_1 X_1$.

The study hypothesized H_{01} that: There is no significant relationship between socially Responsible Procurement and Supply Chain Performance in Kenya owned State Corporations. The results of the survey revealed that there was a positive and significant relationship between SRP and supply Chain Performance in KoSCs. ($\beta_1 = 2.962$, $t = 3.351$, $p\text{-value} < 0.001$). Therefore, the null hypothesis (H_{01}): There is no significant relationship between socially Responsible Procurement and Supply Chain Performance in Kenya owned State Corporations is rejected ($\beta_1 = 2.962$, $t = 3.351$, $p\text{-value} < 0.001$) and conclude that Socially Responsible procurement (X_1) significantly influences Supply Chain Performance (Y) in KoSCs. The results of coefficients to the model $Y = 2.962 + 0.191X_1$ estimates were both significant at the 0.05 level of significance. The constant term implied that at zero SRP, supply chain performed at 2.962 measures. A unit increase in SRP increased the Supply Chain Performance by 0.191 measures. Therefore, SRP is a good predictor of Supply chain Performance of Kenya owned State Corporations.

Table 1: Socially Responsible Procurement and Supply Chain Performance

| Model Summary ^b | | | | |
|----------------------------|-----------------------------|-------------------|----------------------------|--------------------|
| Model | R | Adjusted R Square | Std. Error of the Estimate | |
| 1 | .253 ^a | .064 | .4128571 | |
| ANOVA ^a | | | | |
| Model | Sum of Squares | Df | Mean Square | Significance |
| 1 Regression | 1.914 | 1 | 1.914 | .0231 ^b |
| Residual | 27.954 | 164 | .170 | |
| Total | 29.868 | 165 | | |
| Coefficients ^a | | | | |
| Model | Unstandardized Coefficients | | Standardized Coefficients | Significance |

| | B | Std. Error | Beta | |
|--------------|-------|------------|------|------------------|
| 1 (Constant) | 2.962 | .192 | | 15. .0 411 00 |
| SRP | .191 | .057 | .253 | 3.3 .0 51 01 |

a. Dependent Variable: Performance

b. Predictors: (Constant), SRP

These results on the effect of SRP on supply chain are consistent with that of Korir *et al*, (2016) who found out that socially responsible purchasing constructs such as environment, diversity, human rights and safety responsibility have a positive and significant effect on supply chain performance. The results are also consistent with the findings of a relatively similar study done by Carter and Jennings (2002) found that socially responsible purchasing has a direct impact on the performance, trust and cooperation of suppliers. The findings are further collaborated by Tiwari, *et al*, (2014) whose study on socially responsible purchasing in the automotive industry showed a statistically positive significant relationship between socially responsible purchasing and supply chain performance. However, the study findings contrast Carter (2005) “Purchasing Social Responsibility and Firm Performance” whose findings established insignificant direct relationship between Purchasing Social Responsibility and Firm Performance.

Again, the results on socially responsible procurement on supply chain performance agree with the findings of Muraguri (2013) who established that implementation of the Youth Preference and Reservations Policy in Public Procurement in public procurement in Kenya had a positive and significant influence on supply chain performance. Again, Ngeno, Namusonge and Nteere (2014) in their study “*Effects of Discriminatory Public Procurement Practices on Organizational Performance: A Survey of Public Sector Corporations in Kenya*”, established that socially responsible procurement practices have a positive and significant effect on supply chain performance.

2) 4.2 Environmentally Responsible Procurement and Supply Chain Performance

To determine the relationship between ERP and supply chain performance, ordinary least squares regression was carried out. The regression model $Y = \beta_0 + \beta_2 X_2$ was thus fitted from the data where X_2 represented ERP and Y denoted supply chain performance. Results in table 2, shows that the regression model of X_2 and Y was significant ($F(1,165) = 19.941$, p-value < 0.001), implying that ERP is a valid predictor in the model. The value of R and R^2 were 0.329 and 0.108 respectively. The R value of 0.329 showed that there was a positive linear relationship between ERP and supply chain performance. The R^2 value indicated that the explanatory power of the independent variable was 0.108. This means that 10.8% of the variation in supply chain performance was explained by the model $Y = \beta_0 + \beta_2 X_2$.

The study hypothesized H_{02} that: There is no significant relationship between Environmentally Responsible Procurement and Supply Chain Performance in Kenya owned State Corporations. To test the relationship, the Regression Model fitted was $Y = \beta_0 + \beta_2 X_2 + e$. The results of the survey revealed that there was positive relationship between ERP and SCP in KoSCs ($\beta_2 = 0.208$, $t = 4.466$, p-value < 0.001). The null hypothesis (H_{02}): There is no significant relationship between Environmentally Responsible Procurement and Supply Chain Performance in Kenya owned State Corporations is therefore rejected ($\beta_2 = 0.208$, $t = 4.466$, p-value < 0.001) and conclude that Environmentally Responsible Procurement (X_2) significantly influences supply chain performance in KoSCs (Y). The Model equation is: $Y = 2.953 + 0.208 X_2$. The results of coefficients to the model $Y = 2.953 + 0.208 X_2$ estimates were both significant at the 0.05 level of significance. The constant term implied that at zero ERP, supply chain performed at 2.953 measures, increasing ERP by one unit

increased supply chain performance by 0.208 measures.

Table 2: ERP and Supply Chain Performance

| Model Summary ^b | | | |
|----------------------------|-------------------|----------|-------------------|
| Model | R | R Square | Adjusted R Square |
| 1 | .329 ^a | .108 | .103 |

| ANOVA ^a | | | |
|--------------------|----------------|-----|-------------|
| Model | Sum of Squares | Df | Mean Square |
| 1 Regression | 3.238 | 1 | 3.238 |
| Residual | 26.630 | 164 | .162 |
| Total | 29.868 | 165 | |

| Coefficients ^a | | | | |
|---------------------------|------------|-----------------------------|------------|---------------------------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients |
| | | B | Std. Error | Beta |
| 1 | (Constant) | 2.953 | .148 | |
| | ERP | .208 | .047 | .329 |

a. Dependent Variable: Performance

b. Predictors: (Constant), ERP

The findings on table 2 confirm that ERP positively influences supply chain performance in KoSCs ($\beta_2=0.208$, $t= 4.466$, $p\text{-value} < 0.001$). The Regression Analysis results showed for every unit increase in ERP, there was a corresponding increase in supply chain performance by 0.208 measures. The Pearson’s Correlation Coefficient for ERP and Supply Chain performance ($R=0.329$, $p\text{-value}<0.001$), was significant at 0.05 level of significance.

The regression analysis results are consistent with those of Muma *et al.*, (2014) who established that environmentally responsible procurement has a positive and significant effect on organizational performance. Similarly, the results support the hypothesis by Nderitu & Ngugi (2014) who established a positive and significant relationship between green procurement practices and organization performance in manufacturing industry in Kenya. The research findings also

corroborate Kiswille and Shalle (2016) findings in their study on the role of sustainable procurement practices on supply chain performance of manufacturing Sector in Kenya- who established four sustainability variables namely procurement practices, supplier involvement and electronic procurement had a positive and significant effect on supply chain performance.

This result on the effect of environmentally responsible procurement on supply chain performance support the findings of Rha (2010) who established that green supply chain practices had a positive impact on supply chain performance.

Similarly, the results support Wang and Shieh (2016) which their study which empirically examined the influence of green supply chain management on organizational performance improvement. Drawing on a moderated hierarchical regression analysis, the findings indicate that green supply chain management has a significant impact on firm performance. In addition, the finding concur with the Carter (2013), Gathoni (2016) and Chien & Shih (2007) who empirically established that there is a positive and significant effect between environmental responsible procurement and performance. Again, the results are in agreement with Omonge (2013) findings who established that green supply chain management practices led to enhanced organizational competitiveness through improved operational efficiency, increased customer base, superior services and reduced wastes. Similarly, Nawire *et al.* (2014), Okemba (2014), Omariba (2015), Onyango *et al.* (2012), Ouru(2015) and Mogeni and Kiarie (2016) established a positive and significant effect of environmental responsible procurement on supply chain performance.

3) 4.3 Protectionist Public Procurement and Supply Chain Performance

To determine the relationship between PPP and supply chain performance, ordinary least squares

regression was carried out. The regression model $Y = \beta_0 + \beta_3 X_3$ was fitted from the data where X_3 represented protectionist public procurement and Y denoted supply chain performance. The regression model of X_3 and Y was significant ($F(1,165) = 147.138$, $p\text{-value} < 0.001$) indicate that PPP is a valid predictor in the model. The value of R and R^2 were 0.688 and 0.473 respectively. The R value of 0.688 showed that there was a positive linear relationship between PPP and supply chain performance. The R^2 value indicated that the explanatory power of the independent variable was 0.473. This means that 47.3% of the variation in supply chain performance was explained by the model $Y = \beta_0 + \beta_3 X_3$.

The study hypothesized H_{03} that: There is no significant relationship between protectionist public procurement and Supply Chain Performance in KoSCs. The results of the survey revealed that there was positive relationship between PPP and SCP in KoSCs ($\beta_3 = 0.390$, $t = 12.130$, $p\text{-value} < 0.001$). The null hypothesis (H_{03} : There is no significant relationship between Protectionist Public procurement and Supply Chain Performance in Kenya owned State Corporations or (H_{03} : $\beta_3 = 0$) is therefore rejected ($\beta_3 = 0.390$, $t = 12.130$, $p\text{-value} < 0.001$) and conclude that PPP (X_3) significantly influences Supply chain Performance in KoSCs (Y). The Model equation is: $Y = 2.156 + 0.39X_3$. The beta coefficient for PPP was significant ($\beta_3 = 0.390$, $t = 12.130$, $p\text{-value} < 0.001$). It implies that, a unit increase in the dimension of PPP in Horizontal public procurement practices leads to an increase increased Supply chain performance by 0.39 measures.

Table 3: PPP and Supply chain Performance

| Model Summary ^b | | | | |
|----------------------------|-------------------|-------------------|----------------------------|----------|
| Model | R | Adjusted R Square | Std. Error of the Estimate | |
| 1 | .688 ^a | .473 | .470 | .3098335 |

ANOVA^a

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 14.125 | 1 | 14.125 | 147.138 | .000 ^b |
| | Residual | 15.743 | 164 | .096 | | |
| | Total | 29.868 | 165 | | | |

| Coefficients ^a | | | | | | |
|---------------------------|------------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.156 | .121 | | 17.777 | .000 |
| | PPP | .390 | .032 | .688 | 12.130 | .000 |

a. Dependent Variable: Performance

b. Predictors: (Constant), PPP

This study's findings on the influence of protectionist public procurement practices on supply chain performance are consistent with several scholars (Guerzoni & Raiteri, 2012; Handler, 2014, Ngeno et al., 2014; Ssennoga, 2006; Ssennoga, 2010; Trionfetti, 2000) whose findings advocate for the use of protectionist public procurement measures to protect domestic industries. Again, the results are consistent with Erridge (2006) who argue that protectionist practices do not necessarily lead to negative effects on supply chain performance especially when local content involvement is made as a pre-condition to awarding contracts to any foreign firm since there is no increase in cost of production or efficiency. However, the finding of this study contrasts the findings of Abutabenjeh (2006), Melitz (2005) who established that protectionist (discriminatory) public procurement practices such as preferences and reservations have negative impact on supply chain performance as it stifles competitive tendering. Again, these findings contrasts Fenster (2003) who argues that protectionist (discriminatory) public procurement practices such as set asides are easy for officials to understand and introduce,

simple to explain to tenderers and transparent but they may be the least cost effective, the least competitive and the least equitable hence having a negative effect on supply chain performance.

Summary

The first objective of the study sought to determine the significance of the relationship between socially responsible procurement and supply chain performance in KoSCs. The objective was addressed by testing hypothesis H_{01} . The findings of this study indicate that socially responsible procurement had a positive and significant effect on supply chain performance in KoSCs. These findings led to the rejection of the hypothesis H_{01} . Hence concluding that socially responsible procurement is a significant factor among horizontal public procurement practices that enhance overall supply chain performance. Therefore, supply chain managers in KoSCs need to take cognizance of pivotal role of socially responsible procurement in enhancing supply chain performance. These findings confirm the theoretical propositions of Moore's Public Value Theory. They also compared well with other previous empirical studies.

The second objective of the study aimed at establishing the influence of environmentally responsible procurement on Supply Chain Performance in KoSCs. The objective was addressed by testing hypothesis H_{02} . The findings of this study indicate that there is a positive and statistically significant relationship between environmentally responsible procurement and supply chain performance. These findings led to the rejection of the hypothesis H_{01} and conclude that environmentally responsible procurement is a good predictor of supply chain performance of KoSCs. These findings confirm the theoretical propositions of Public Value Theory in the use of tremendous purchasing power of public procurement to generate public value. They also compare well with other previous empirical studies.

The third objective of the study aimed at establishing the influence of protectionist public

procurement on the Supply chain performance in KoSCs. This objective was addressed by testing hypothesis H_{03} . The results of this study indicate that there is positive and statistically significant relationship between protectionist public procurement and supply chain performance in KoSCs. This result also led to the rejection of the hypothesis H_{03} and concludes that protectionist public procurement is a good predictor of supply chain performance in KoSCs. Again, the results confirm the theoretical propositions of Public Value Theory.

Conclusion

This study examined the relationship between Socially Responsible Procurement; Environmentally Responsible Procurement and Protectionist Public Procurement and Supply chain performance in KoSCs. A cross section data was collected from heads of supply chain in KoSCs that facilitated the testing of the models. The analytical results indicate that horizontal public procurement practices have a positive and statistically significant influence on supply chain performance in Kenya owned State Corporations. Hence, the results not only provides support to extension of the public value theory on the use of the tremendous purchasing power of public procurement to generate public value but also indicate that procurement in KoSCs undoubtedly creates public value.

Areas for further Research

This research was primarily focused on assessing the influence of horizontal public procurement practices on supply chain performance in KoSCs. However, these practices are not only implemented in the state corporations but also to an array of other public sectors. The study could be replicated in a different public sector to establish if similar results can be achieved. Additionally, the research did not focus on the effect of supplier characteristics on supply chain performance. Hence, future research may explore the antecedent influence of supplier

characteristic on the relationship between horizontal public procurement practices and supply chain performance in public corporations in Kenya. The study used a cross sectional survey design. Cross sectional studies do not detect causal effects of variables. Future research could use a longitudinal study to be able to provide a better understanding of the Public Value - performance relationship over time.

REFERENCES

- [1] Moore, M. H. (1995). *Creating public value: Strategic management in government*. Harvard University Press.
- [2] Moore, M. H. (2013). *Recognizing public value*. Harvard University Press.
- [3] Benington, J., & Moore, M. H. (Eds.). (2011). *Public value: Theory and practice*. Palgrave Macmillan.
- [4] Pestoff, V., Brandsen, T., & Verschuere, B. (Eds.). (2012). *New public governance, the third sector, and co-production*. Routledge.
- [5] Borins, S. (2002). The challenge of innovating in government. *Governance*, 15(2), 259-283. ADB. (2007). *Environmentally Responsible Procurement: A Reference Guide for Better Practices* (No. 100807). Sydney Australia: Asian Development Bank.
- [6] Agaba, E., & Shipman, N. (2010). Public Procurement Reform in Developing Countries: The Uganda Experience. *Journal of Public Procurement*, 10(2), 373-390.
- [7] Akenroye, T. (2013). An Appraisal of the Use of Social Criteria in Public Procurement in Nigeria. *Journal of Public Procurement*, 13(3), 364-397.
- [8] Akinyi, G., & Moturi, C. (2015). Application of Is-Balanced Scorecard in Performance Measurement of E-Government Services in Kenya. *American Journal of Information Systems*, 3(1), 1-14.
- [9] Anklesaria, J. (2007). *Supply Chain Cost Management: The Aim & Drive Process for Achieving Extraordinary Results*. AMACOM Books.
- [10] Arrowsmith, S. (1995). Public Procurement as an Instrument of Policy and the Impact of Market Liberalization. *Law Quarterly Review*, 1.
- [11] Arrowsmith, S. (2009a). *Procurement Regulation in the 21st Century: Reform of the UNCITRAL Model Law on Procurement* (1st Ed.). Eagan: West.
- [12] Arrowsmith, S. (2009b). *Social and Environmental Policies in EC Procurement Law: New Directive and New Direction*.
- [13] Arrowsmith, S. (2010a). Horizontal Policies in Public Procurement: A Taxonomy. *Journal of Public Procurement*, 10(2).
- [14] Ayoyi, I., & Odunga, R. (2015). Role of Strategic Sourcing on Public Procurement Performance in Kenya. *European Journal of Logistics, Purchasing and Supply Chain Management*, 3(4), 1-8.
- [15] Balm, S., Van-Amstel, W., Habers, H., Aditjandra, P., & Zunder, T. (2016). The Purchasing Behavior of Public Organizations and Its Impact on City Logistics. In *Transportation Research Procedia* 12 (Vol. 12, pp. 252-262). Tenerife, Canary Islands-Spain: Transportation Research Procedia 12.
- [16] Barnett, L., & Salomon, M. (2012). Does It Pay to be Really Good? Addressing the Shape of the Relationship Between Social and Financial Performance. *Strategic Management Journal*, 33(1), 1304-1320.
- [17] Barraket, J., & Weissman, J. (2009). *Social Procurement and Its Implications for Social Enterprise: A Literature Review*. Brisbane: Australian Centre for Philanthropy and Nonprofit Studies. Retrieved from http://eprints.qut.edu.au/29060/1/Barraket_and_Weissmann_2009_Working_Paper_No_48_Final.pdf
- [18] BDL. (2005). *The Power of customers to drive innovation*.
- [19] Benita, B. (1999). Measuring supply chain performance. *International Journal of Operations & Production Management*, 19(3), 275 - 292.
- [20] Blaug, R., Horner, L., & Lekhi, R. (2014). *Public Value, Politics and Public Management: A literature Review*. White Paper, London.
- [21] Bolstorff, P. (2011). *Supply Chain Excellence: A Handbook for Dramatic Improvement Using the SCOR Model* (3rd Edition). AMACOM Books.
- [22] Bolton, P. (2004). The use of government procurement as an instrument of policy. *South African Law Journal*, 121(3), 619-635.
- [23] Bolton, P. (2006). Government procurement as a policy tool in South Africa. *Journal of Public Procurement*, 6(3).
- [24] Bolton, P. (2008). Protecting the environment through public procurement. *Natural Resources Forum*.
- [25] Botta-Genoulaz, V. (2013). *Supply Chain Performance: Collaboration, Alignment, and Coordination*. John Wiley & Sons.
- [26] Brammer, S., & Walker, H. (2011). Sustainable procurement in the public sector: an international comparative study. *International Journal of Operation Management*, 31(4), 452-476.
- [27] Brunninge, O., & Fridriksson, H.-V. (2017). "We Have Always Been Responsible"-a Social Memory Approach to Responsibility in Supply Chains. *European Business Review*, 29(3), 372-383.
- [28] Bugo, J. (2014). *Outsourcing and the Performance of State Corporations in Kenya*. University of Nairobi, Nairobi.
- [29] Burkett, I. (2010). *Social Procurement in Australia*. Sydney: The Centre for Social Impact, University of NSW. Retrieved from http://www.socialtraders.com.au/sites/www.socialtraders.com.au/files/SP%20in%20Australia_0.pdf.
- [30] Cabras, I. (2011). Mapping the Spatial Patterns of Public Procurement: A Case Study of a Peripheral Local Authority in Northern England. *International Journal of Public Sector Management*, 6(1), 187-218.
- [31] Carter, C. (2005). Purchasing Social Responsibility and Firm Performance: The Key Mediating Roles of Organizational Learning and Supplier Performance. *International Journal of Physical Distribution & Logistics Management*, 35(3-4), 177-194.
- [32] Carter, C., & Jennings, M. (2008). Social Responsibility and Supply Chain Relationships. *Transportation Research Part E: Logistics and Transportation Review*, 38(1).
- [33] Carter, C., Kale, R., & Grimm, C. (2000). Environmental Purchasing and Firm Performance: An Empirical Investigation. *Transportation Research Part E*, 36(1), 219-228.
- [34] Carter, R. (2013). Environmental Purchasing and Firm Performance: An Empirical Investigation. *Logistics and Transportation Review*, 36(3), 219-228.
- [35] Carter, R., & Jennings, M. (2000). *Purchasing's Contribution to the Socially Responsible Management of the Supply Chain* (No. 2000). London: Center for Advanced Purchasing Studies.
- [36] Carter, R., & Rodgers, S. (2008). *Framework of Sustainable Supply Chain Management: Moving Toward New Theory*. *International Journal of Physical Distribution & Logistics Management*, 38(1), 360-387.
- [37] Catlaw, Thomas. (2010). *Socially Responsible Supply Management: Thinking Global in Local Government Purchasing during a Fiscal Crisis*. Arizona State University: Arizona State University Press.
- [38] Chakraborty, D. (2009). *Research Methodology* (1st ed., Vol. 1). New Delhi: Saurabh Publishing House.