

Governments to order More? Implementation of Executive Orders and Decrees on Supply Chain Performance in Public Entities: Evidence from A Developing Economy

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ABSTRACT: Today, there is increased trend in public sector firms to manage their supply chains prudently in order to improve performance. Supply Chain Management is not only important to economic and social developments, but also for supply chain performance. The world over, public entities have increased from 9%-2023% between 2005 to 2023, this indicating their ensuing value to nations. Kenya's public entities contribute Ksh. 438.24 billion spent in public procurement which is about 9% of Gross Domestic Product. However, Parastatal reforms report, 2021 show that the supply chain performance in public entities is declining and 18 entities will have Ksh. 382 billion liquidity gap between 2021-2025. Scholarly works in procurement laws and regulations have concentrated on main elements making up the procurement legal framework especially the Public Procurement and Asset disposal act 2015, ignoring public procurement executive orders and decrees. The paper sought to establish effect of implementation of executive orders & decrees on supply chain performance in a developing economy of Kenya. A correlation survey design on a population of 187 public entities was utilized. Primary data was collected from heads of procuring units using a structured questionnaire. Standard linear regression analysis was employed in analysis of data. The findings revealed that implementation of executive orders and decrees has significant positive effect and explains 50.0% variance in supply chain performance ($\beta=.160$, $p<.05$, $R^2=.500$, $p<.05$), practically providing sufficient evidence that improvement in unit implementation of public procurement executive orders & decrees results to 0.160 units increase in performance. Findings support theoretical grounds that supply chain firms can create value for common citizenry by effectively implementing government public procurement orders & decree. We conclude that governments of nations to frequently issue orders and decrees that guide public procurement and stakeholders to effectively and religiously implement public procurement executive orders & decrees. The paper provides interesting recommendation beseeching public sector firms to effectively implement executive orders in procurement. A research agenda is offered to further discussions.

KEYWORDS: Public Procurement, Executive Orders & Decrees, Supply Chain Performance, Public Entities,

I. INTRODUCTION

Procurement is not a new occurrence among scholars in the contemporary literature, given that it has driven an incessant interest among writers. Procurement is any effort directed towards acquisition of materials for an organization's use and includes vendor sourcing up to delivery to the final consumer (Asamoah, Berko & Adu Poku, 2019). Hawkins, Gravier, Berkowitz, & Muir (2015) refer to procurement as the act of soliciting, negotiating for terms and obtaining goods, works and services from an external provider often through tendering or structured bidding procedure. It is meant to enable organizations wanting materials to do so at the best possible price where the parties compare aspects such as place, time, quality and quantity.

Furthermore, Loosemore, Alkilani & Murphy (2021) assert that procurement is a broad discipline which encompasses processes and activities meant to acquire materials and includes establishing material specifications, sourcing which includes market research as well as negotiation. The Public Procurement and Asset Disposal Act (PPAD, 2015) defines procurement as the acquisition by purchase, rental, lease, hire purchase, license, tenancy, franchise, or by any other contractual means of any type of works, assets, services or goods including livestock or any combination and includes advisory, planning and processing in the supply chain system. From this definitions, it can be pin pointed that procurement generally implies the process which ensures that the firm acquires materials for use and disposals in order to accomplish its goals and objectives.

A legal framework of any system or structure encompasses the rules, laws and policies that govern the respective subjects. Procurement legal framework remains imperative in the working of any organization that procures goods, works and services, hence such entities need to argument a sound legal framework in order to improve performance. According to Mutangili (2019), the public procurement legal framework clearly defines how public procurement ought to be practiced by stakeholders, experts as well as practitioners, and includes all the phases of the procurement process, general principles of procurement and asset disposal, methods of acquisition of materials as well as the relevant policies. Even though, it is important to note that a worthy public procurement legal framework is centered on the crucial principles that guide the practice (Robert, 2006; Thai, 2009).

In order to understand legal framework of the procurement system in Kenya, it is important to first consider the 2010 new Constitution. Promulgation of the new Constitution 2010 was instrumental in giving radical changes to the Procurement Legal Framework. The idea of procurement was first included in the constitution, and this showed that procurement, just like many lucrative fields, was important in the governance system of the country. So saying, the enactment of an overarching act, the PPAD Act 2015, was made possible by the new Constitution of Kenya, 2010. The title of the act states:

An act of parliament to give effect to article 227 of the constitution, to provide for procedures for efficient procurement and asset disposal by public entities; and connected purposes

Article 227 of the Constitution of Kenya 2010, states:

(1) When a State organ or any other public entity contracts for goods and services, it shall do so in accordance with a system that is fair, equitable, transparent, competitive and cost-effective.

(2) An Act of Parliament shall prescribe a framework within which policies relating to procurement and asset disposal shall be implemented....

Previous studies on procurement legal framework, laws and regulations have been documented in empirical works. For instance, Panya & Were (2018) conducted a study on Public Procurement Regulatory Compliance in County Governments in Kenya by using descriptive research design on a population of 525 participants and selecting 105 respondents made up of procurement officers from county assembly, governor's office, county ministries, the sub county and the county referral and sub county hospitals. Questionnaires were chosen as research instruments where multiple regression models were used as analysis techniques aided by SPSS software. The findings of the study depicted that management of the procurement process, ethics in procurement, contract management and cost of finance management had a statistical significant and positive relationship with procurement regulatory compliance. The recommendations of the study were that managers and policy makers in counties and other PEs to harness policies on management of the procurement process, ethics in procurement, contract management and cost of finance management as this will improve compliance to the procurement regulatory compliance.

The study by Cantera (2021) on public procurement rules and management in Spain employed a desktop review methodology to conclude that the difference in management and leadership styles of Spain's community metropolis of Castilla Leon was responsible for poor implementation of public procurement rules. Management models of community metropolis contracted for public transport services within the towns were different and this brought about discrimination in the application of public procurement rules. Cantera warned that while metropolis in Spain are guided by common public procurement rules on contracting for public transport services, implementation of these rules, does not improve performance due to different management models applying the rules differently. This study concentrated

on bus transport in metropolis and did not consider all PEs applying procurement rules. Moreover, Cantera (2021) adopted a desktop review methodology on secondary data, ignoring primary data & a quantitative approach.

As discussed above, previous works on procurement laws and regulations in Kenya and the world over have been documented, even though basing in the old constitution of Kenya, with no major scholarly works focusing on the new constitution which brought notable changes to the legal framework of public procurement. Specifically, the executive orders and decrees in public procurement (Order 6. Of 2015 and Order 2. Of 2018) which were proceeds of the new Constitution of Kenya 2010, are non-existent in academic literature and therefore their effect on supply chain performance not known. The present study hoped to fill this gap by looking at the effect of implementation of executive orders and decrees on supply chain performance of Kenyan public entities.

The performance of SC units in PEs is inadequate, many are grappling with corruption, poverty, lack of efficiency and ineffective delivery of services to the common citizens due to poor adoption and use of the legal framework guiding public procurement. Poor implementation of the procurement legal framework was evident in the case of Kenya Medical Supplies Authority KEMSA, (interested party), the PPARB & Republic and Emcure Pharmaceuticals Ltd. (Ex parte) (2019) case that was petitioned in court in 2019. The court held that KEMSA, as a PE violated the PPAD Act (2015) by entering into a contract before elapse of the 14-day period to allow room of rebuttal for any aggrieved service provider. The tender was thus quashed and the entity ordered to re tender. Another fundamental proof of poor implementation of the public procurement legal framework was seen in the Independent Electoral & Boundaries Commission (IEBC), voter registration contract which was lobbied in the Supreme Court in 2013. The petitioners opined that the commission violated the spirit of PPAD Act, 2015 and constitution by making an award decision to a service provider who did not meet thresholds of the tender document, and thus supplied KIEMS kits that failed in the 2013 Kenya general election. The court in its ruling, held that the procurement of the failed election kits was due to a lack of understanding in boardroom meeting on application of procurement procedures and this led to failure of the commission to test integrity of the kits in good time (Case Petition 5, 2013).

Implementation and compliance levels to the procurement legal framework among PEs has remained low and unsatisfactory. There is no single one entity that has attained a compliance level of 100% (PPRA Reports, 2020), indicating that there is poor implementation of the procurement procedures and regulations

1.1 Objective of the study

The main objective of the study was to establish the effect of Implementation of Executive Orders & Decrees on supply chain performance of public entities in a developing economy, Kenya

1.2 Research Hypothesis

H₀₁: Implementation of Executive Orders & Decrees has no significant effect on supply chain performance of public entities in Kenya

1.3 Justification of the study

Many governments in various nations issue executive orders and decrees meant to streamline public procurement practices and alleviate performance levels of their supply chain firms. This is true in developing nations, with Kenya being a no exception. Hence, a study on implementation of public procurement Executive Orders & Decrees on supply chain performance offers practical solutions to policy makers and stakeholders on whether such orders and decrees can in essence, help purchasing firms offer better results. Yet again, studies in literature have concentrated on main acts and regulations in public procurement, partly because executive orders and decrees guiding public procurement are so seldom issued.

Basing on this unfolding truths, the study was poised to investigate the implementation of public procurement Executive Orders & Decrees on supply chain performance which were an important ground for future scholars. The study may inform policy makers (the government and Managers) by suggesting that implementation of public procurement Executive Orders & Decrees may be important resources for improving performance, and therefore invest resources for their practicality. Lastly, stakeholders in public procurement such as procurement practitioners as well as industry firms such as Public Procurement Regulatory Authority may find it fit to adopt conclusions and recommendations of the study in practice to save resources and improve performance.

1.4 Conceptual framework

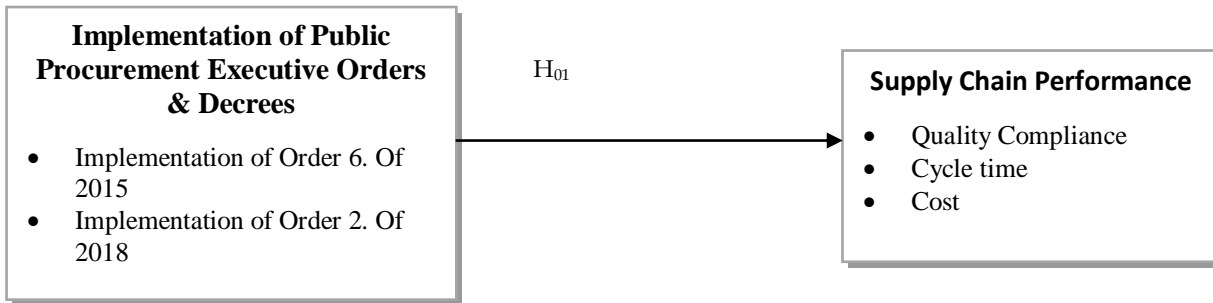


Figure 1. 1: Conceptual framework of the effect of implementation of public procurement Executive Orders & Decrees on supply chain performance of public entities in Kenya. Source: (Adapted from Moore, 1995; Marendi, 2015)

The conceptual model of the study above depicts an association between implementation of public procurement Executive Orders & Decrees on supply chain performance which exhibits a cause and effect relationship. The independent variable is implementation of public procurement Executive Orders & Decrees. Aspects of Executive Orders & Decrees in place (implementation of Order 6. Of 2015, implementation of order 2. Of 2018) may affect supply chain performance of public entities. With this therefore, it is expected that the values of public procurement as enshrined in the constitution in terms of transparency, value for money, competition and cost-effectiveness (estimated in this case as supply chain performance metrics, quality compliance, cost effectiveness, cycle time) may be achieved by public entities. Therefore, the study is composed of two main variables; independent variable (implementation of public procurement Executive Orders & Decrees) dependent variable (supply chain performance) as shown in the figure 1.1

II. LITERATURE REVIEW

2.1 Public Value Theory

Public Value Theory (PVT) was first coined by Professor Mark H. Moore who established it as an equivalent of shareholders' value in public management in 1995. It advises managers in the public domain, with a bigger picture plan of mitigating constraints and utilizing opportunities presented, as well as the dare to evolve and add value to their outcomes. It explains the value that an organization gives to the society by adopting and utilizing its given resources. PVT provides managers with an understanding of how entrepreneurial activities promote the common good. It is incorporated as an important element in the public sector, more so in PEs, to provide an avenue for employees at all levels (top, middle, operational) to suggest new ways about how to improve organizational working in terms of reducing rates of corruption, improving efficiency and effectiveness. Organizations in the public domain which adopt public value as a principle have to create an organization-wide culture where the quest for public value by individual employees is recognized and rewarded.

PVT establishes that a manager's scope extends beyond implementation of policies and adherence to the norms and culture to include deriving opportunities with a view to improve lives of the common citizenry. This is from the sheer fact that organizations giving services for citizen use are directly responsible to the citizens and their representatives on the use of resources bestowed to them, unlike their private counter parts. Moore (1995) provides that in order to create public value, an organization must first define its operational capacity, that is ability of the firm to operate and authorizing environment (managers of the firm who make decisions).

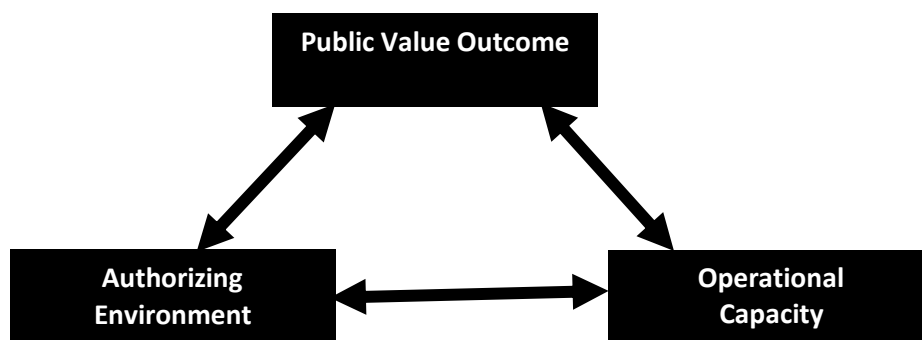


Figure 2. 1 Moore Strategic triangle of public value. Source: (Adopted from Moore, 1995)

PVT was adopted to anchor the study. It grounded the contribution of the study on supply chain performance. This is on the basis that the supply chain performance of PEs (quality compliance, cycle time and cost effectiveness) have a duty of providing value to the citizens (ensuring competition, fairness, equality, economy, value for money). Managers in the entities are accountable to the public given that the government funds the entities through the tax payers' contributions. These establishments show that the common citizen must derive maximum value from PEs.

As tenets of PVT bestow, the managers' scope in public entities is not just implementation of laws and procedures but an understanding of the value that implementation of the said legal framework accrues. The value of procurement legal framework can be understood by a look at the objectives underpinning establishment of the legal framework. These objectives are clearly depicted in section 227, subsections (1) and (2) of the Constitution of Kenya (2010) on procurement of goods and services:

(1) When a State organ or any other public entity contracts for goods and services, it shall do so in accordance with a system that is fair, equitable, transparent, competitive and cost-effective.

(2) An Act of Parliament shall prescribe a framework within which policies relating to procurement and asset disposal shall be implemented

The New Constitution of Kenya 2010 while establishing the procurement legal framework, established the objectives of the public procurement laws and regulations as ensuring fairness, equality, transparency, competition, economy and value for money. These are important principles of public procurement are the antecedents of citizenry value. The judiciary of Kenya has recognized these establishments as important values in the conduct of public procurement practices. For instance; in the case of Republic of Kenya vs Public Procurement Administrative Review Board (PPARB), Accounting Officer, Kenya Rural Roads Authority and 2 others (Amicus Currie), Ex Parte Roben Aberdare (K) Ltd. (2019) eKLR, paragraph 103 of the judgement the court held as follows:

"Procurement disputes revolve around the proper interpretation and application of Article 227 of the Constitution; hence, they raise constitutional issues. This is because procurement so palpably implicates socio-economic rights that the public has an interest in its being conducted in a fair, equitable, transparent, competitive, and cost-effective manner".

The Court further declared as follows:

"...It is important to bear in mind that fairness, equitability, transparency, competitiveness and cost-effectiveness are the guiding principles, required by the Constitution in relation to all public procurement in Kenya. Thus, whatever is done should not cause the process to lose the attribute of fairness or, the attributes of transparency, competitiveness and cost-effectiveness. Fairness in the procurement process is a value in itself and a proper compliance with the procurement process is necessary for a lawful process."

The ruling of the court concluded by establishing:

'Fairness is inherent in the tender procedure. Its very essence is to ensure that before a State organ purchases goods or services, or enters into contracts for the procurement thereof, a proper evaluation is done of what is available and at what price, so as to ensure cost-effectiveness and competitiveness. Fairness, transparency, and the other facts mentioned in Article 227 of the Constitution permeate the procedure for awarding or refusing tenders.'

It can be seen that establishment of procurement laws and regulations was to create public value by managers in PEs (managers are agents of government) by upholding objectives of public procurement. The study thus conceptualizes that achievement of the objectives of public procurement creates public value for the common good of the citizens.

2.2The Concept of Public Procurement

The idea of public procurement is not a new concept in the contemporary academia. It was first molded and written in Syria on a red clay tablet at around 2400 and 2800 B.C. The first procurement was for purchasing 50 jars of smooth oil in exchange for 600 small weight in grain. In around 800 B.C., there existed evidence of procurement between China and the Greek colony which concentrated on the development of silk trade. Government legislature in the United States at around 1800s began to make legislature and policies to create boards responsible for conducting purchasing. However, central procurement by state agencies was so seldom practiced at the time. In 1778, the continental congress approved purchasing commissioners who were paid 2% of the value of procurements. An increase in fraud and bribe saw the commissioners put on a salary payment at the end of the year. In 1792, the U.S Congress approved a purchasing act that gave the treasury and war departments authority to procure in the name of the United States. The first early procurement was made in 1794 where 6 frigates for the U.S Navy were bought. Wastage of public resources and bad

experience enabled the enactment of a more comprehensive procurement law; the Purveyor of Public Supplies Act that could later ground procurement in the US military.

Later on, lack of implementation and effective compliance to the Supplies Act gravitated enactment of Public Contracts Act in 1808 (Kanyaru & Moronge, 2017) which barred Congress members from taking part in public procurement. In 1809, the Procurement Act was enacted which required public procurement to be as competitive as possible. The earliest notable recognition of procurement is recorded in the works of Charles Babbage (1832) book on Economy of Machinery and Manufacturers where he called for a procurement officer in the mining sector. During the world war, the role of procurement became non instrumental due to scarcity of materials. In 1980 organizations were increasingly concerned with supplier competition and acquisition of quality supplies. In today's time, procurement is instrumental for an organization success. Chief procurement officers are today important in strategic management of the firm. Since then, there have been many developments in PP worldwide (Kanyaru & Moronge, 2017).

2.3 Implementation of Public Procurement Executive Orders & Decrees and Supply Chain Performance

Implementation is understood as the execution, adoption and use or the carrying out of a plan or framework in order to achieve goals and objectives. In this essence, implementing the procurement legal framework is the execution of legal framework guiding procurement and disposal of works, goods and services (Lynch, 2013).

Public procurement executive orders and decrees in Kenya stemmed from promulgation of the new constitution of 2010, Chapter 12, and section 227, which gives precedence for establishment of the legal framework through an act of parliament. The legal framework is composed of the following elements:

Executive orders and decrees in supply chain management are presidential and ministerial proclamations that affect operations in public procurement. The executive order 6. Of 2015 communicated the need to uphold integrity and ethical conducts by state officers, more specifically in PP in a view to fight corruption. The president ordered procurement practitioners to adopt and use integrated financial management information system (IFMIS) when carrying out procurements in a bid to harness transparency and seal loopholes of corruption in public procurement.

The executive order 2. Of 2018 was based on transparency and accountability in PP. The order directed PEs to update and make public all information and records pertaining to procurements and disposals including but not limited to names of bidders prequalified and awarded, scope and specification of goods, works and services, capacity of the awarded bidders, names of members of evaluation and inspection & acceptance committees among others. This order was meant to accelerate and deepen transparency in PP.

Previous works on public procurement laws and regulations are not seldom. The study by Cantera (2021) on public procurement rules and management in Spain employed a desktop review methodology to conclude that the difference in management and leadership styles of Spain's community metropolis of Castilla Leon was responsible for poor implementation of public procurement rules. Management models of community metropolis contracted for public transport services within the towns were different and this brought about discrimination in the application of public procurement rules. Cantera warned that while metropolis in Spain are guided by common public procurement rules on contracting for public transport services, implementation of these rules, does not improve performance due to different management models applying the rules differently. This study concentrated on bus transport in metropolis and did not consider all PEs applying procurement rules. Moreover, Cantera (2021) adopted a desktop review methodology on secondary data, ignoring primary data & a quantitative approach.

Jibrin, Ejura & Augustine (2014) on Public procurement reforms in Nigeria: Implementation & compliance challenges, the writers make use of secondary data as well and desktop review methodology on published data which focused on implementation and compliance to Nigeria procurement regulations. It is espoused that procurement encompasses the whole process of acquiring assets, livestock, goods works and assets and spans from when an organization identifies the need and decided on its material requirement. While following this process buoyed by honest implementation of the legal framework, the writers acknowledge that public procurement in many countries are bedeviled with negligence, lack of a sense of direction, non-competition, lack of transparency, corruption and a system enjoined in political patronages. The study identifies media publicity, organization culture, political patronage as the main aspects influencing implementation and compliance to procurement legal framework implementation in Nigeria (Jibrin *et al.*, 2014).

Panya & Were (2018) conducted a study on determinants of Public Procurement Regulatory Compliance by County Governments in Kenya. A descriptive research design, employed on a targeted population of 525 participants was

adopted. The paper set to determine the effects of procurement process management, procurement ethics, contract management and financial cost management o procurement regulatory compliance in Homabay County. Stratified random sampling technique was adopted to select 105 respondents made up of procurement officers of the county assembly, governor’s office, county ministries, the sub county referral and sub county hospitals. Chief ministers of departments were also included as units of observations. Questionnaires were chosen as research instruments where multiple regression models were used as analysis techniques aided by SPSS software. The findings of the study depicted that management of the procurement process, ethics in procurement, contract management and cost of finance management had a statistical significance and positive relationship with the procurement regulatory compliance. The recommendations of the study were that managers and policy makers in counties and other PEs to harness policies that will the determinants as this will improve compliance to the procurement regulatory compliance.

As discussed above, previous works on procurement laws and regulations in Kenya and the world over have been documented, even though basing in the old constitution of Kenya, with no major scholarly works focusing on the new constitution which brought notable changes to the legal framework of public procurement (Panya & Were, 2018: determinants of Public Procurement Regulatory Compliance by County Governments in Kenya; Cantera, 2021:Public procurement rules and management in Spain; Jibrin, *et al.*, 2014: Public procurement reforms in Nigeria: Implementation & compliance challenges. Specifically, the executive orders and decrees in public procurement (Order 6. Of 2015 and Order 2. Of 2018) which were proceeds of the new Constitution of Kenya 2010, are non-existent in academic literature and therefore their effect on supply chain performance not known. The present hoped to fill this gap by looking at the effect of implementation of executive orders and decrees on supply chain performance of Kenyan public entities.

III. METHODOLOGY AND DESIGN

The paper is based in quantitative paradigm and guided by the positivists believe. In essence, positivists maintain an objective stance of their surroundings and be independent of what is being researched. An important view of this philosophy is that the research mostly involves measurement of quantitative data and incorporates a deductive approach to theory development. Methods of analysis are often quantitative and derived from measuring observable facts (Saunders *et al.*, 2009; Tsang, 2016). A correlational survey design guided collection of primary data with the help of a structured questionnaire. The period of field work including data collection was between February to June 2023.

We surveyed 187 public entities as units of observations and considered 187 heads of procurement units as analysis units. Heads of procurements units were primarily chosen as target respondents since they are chiefly responsible for implementation of procurement laws and regulations, including implementation of public procurement executive orders and decrees. A pilot study on 19 PEs, forming 10% and who did not take part in the final study was stratified and randomly selected to take part in pre-testing of the research instrument. According to Connolly (2008), a pilot study should be 10-20% of the sample projected for the larger parent study in order to allow for meaningful generalization. To establish the effect of implementation of public procurement executive orders and decrees of on supply chain performance of Public Entities in Kenya the paper adopted, standard multiple linear regression analysis.

$$Y_i = \beta_0 + \beta_1 X_{1i} + \varepsilon_i \dots\dots\dots(3.1)$$

Where;

- Y_i Is the dependent variable (Supply Chain Performance), the scaled variable that is the weighted average of three SCP descriptors, quality, cost and cycle time
- β_0 Identifies an adjustment constant due to scale differences in measuring implementation of public procurement executive orders and decrees and Supply Chain Performance (the intercept or the place on the P - axis through which the straight-line passes. It's the value of Y when the X1 is 0.
- β_1 Are constants describing the functional relationship in the population.
- X_{1i} Is the independent variable, implementation of public procurement executive orders& decrees
- Epsilon, ε_i Represents the error component for each Entity. The portion of Y score that cannot be accounted for by its systematic relationship with values of X1, the predictor variable.

Source: (Adapted from Freund, Wilson & Sa, 2006; Field, 2005)

IV. RESULTS AND DISCUSSIONS

4.1 Response Return rate

A total of 168 questionnaires were administered to procurement officers of the public entities. The response return rate is presented as shown in Table 4.1

Table 4. 1: Response Return rate

Organizations	Sample	Total Response	Percentage Response
Number of Organizations	168	158	94.05%

Source: (Field Survey, 2023)

From the findings in Table 4.1, it is clear that out of a total of 168 questionnaires that were administered, there was a response return of 158 fully filled questions which represents 94.05%. This is indicative of good response return according to Kothari (2003) observation that a response return rate above 90% represents a good data collection process and hence qualifies the collected data for generalization over the calculated sample size.

4.2 Implementation of Executive Orders & Decrees (IEOD)

Respondents in public entities were asked to indicate the extent of implementation of outlined statements on Executive order 6. Of 2015 and Executive Order 2. Of 2018 using a Five Point Likert scale where: Strongly Agree (SA)=5, Agree (A)=4, Neutral (N)=3, Disagree (D)= 2, = Strongly Disagree (SD)= 1. The findings are presented as shown in Table 4.4 using frequency counts, percentages, means and standard deviations.

Table 4. 2: Implementation of Executive Orders & Decrees (IEOD)

Implementation of Executive Orders & Decrees (IEOD)	SD	D	N	A	SA	M	STD
1. The organization updates and makes public information regarding procurement & disposals	54(34.2)	62(39.2)	24(15.2)	8(5.1)	10(6.3)	2.1	1.12
2. The Accounting officer is responsible for procurements and disposals of at least Ksh. 10, 000,000	35(22.2)	70(44.3)	39(24.7)	6(3.8)	8(5.1)	2.3	1.01
3. The organization keeps records for a concluded procurement & asset disposal for at least 6 years	43(27.2)	74(46.8)	31(19.6)	4(2.5)	6(3.8)	2.1	0.95
4. The organization carries out procurements & disposals through the Integrated Financial Management Information Systems (IFMIS)	50(31.6)	74(46.8)	23(14.6)	4(2.5)	7(4.4)	2.0	0.98
5. Our organization normally reports and publicizes information o procurement and disposals arising from procurement activities in the public procurement information portal PPIP	61(38.6)	38(24.1)	39(24.7)	12(7.6)	8(5.1)	2.2	1.17
6. Out organization reports information on procurements and disposals in the format and structure in the act	16(10.1)	50(31.6)	57(36.1)	29(18.4)	6(3.8)	2.7	1.00
Overall Mean & Std. deviation						2.23	0.71

KEY: SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD- Strongly Disagree, M-Mean, STD-Standard Deviation,

Source: (Field Survey, 2023)

From the findings in Table 4.4, majority, 62(39.2%) of the respondents disagreed that the organization updates and makes public information regarding procurement & disposal, to which 54(34.2%) strongly disagreed and 24(15.2%) remained neutral. There were only 10(6.3%) of the respondents who strongly agreed and 8(5.1%) who agreed. A low mean and high standard deviation were obtained (M=2.1, STD=1.12) thus concurring with majority of the respondents who disagreed. This means that there were very little efforts by organizations to update and make public information regarding procurement & disposal.

Majority of the respondents, 70(44.3%) disagreed that the accounting officer is responsible for procurement and disposals of at least Ksh. 10,000, which were supported by 35(22.2%) who strongly disagreed. It is clear that 6(3.8%) of the respondents agreed while 8(5.1%) strongly agreed while 39(24.7%) remained neutral. Following the cumulatively 66.5% of the respondents who disagreed and strongly disagreed, it can be noted that accounting officers were rarely responsible for procurement and disposals of at least Ksh. 10,000. This is confirmed by a low mean and standard deviation ((M=2.3, STD=1.01).

Concerning the organization record keeping for concluded procurement & asset disposal for at least 6 years, majority of the respondents, 74(46.8) disagreed and were supported by 43(27.2) who strongly disagreed. A low mean and standard deviation (M=2.1, STD=.95) further affirmed the responses of poor record keeping for atleast 6 years. Finally, the findings from majority of the respondents who disagreed, 74(46.8%) indicates that the organizations carry out procurements & disposals through the Integrated Financial Management Information Systems (IFMIS), which was also strongly disagreed by 50(31.6%) of the respondents, with a low mean and standard deviation (M=2.0, STD=.98). This means that there is little done by organizations through the IFMIS in terms of procurements and disposals.

4.3 Effect of Implementation of Executive Orders & Decrees (IEOD)on Supply Chain Performance of Public Entities in Kenya

We first thought it wise to affirm whether implementation of public procurement EOD has any association with supply chain performance. This was achieved through Pearson’ Product moment correlation (r) model was adopted. The correlation coefficient measures correlation between variables by the r - value, where an r - value = 0 signifies lack of correlation with a value further away from 0 (towards -1 or +1) signifies stronger correlation. LeeRodgers & Nicewander (1988) show that a coefficient correlation above 0.9 indicated presence of high correlation among variables. The adapted model is represented below;

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

Source: (Adopted from Chen *et al.*, 2003; Chen & Popovich, 2002)

Where;

- r = the Pearson Coefficient of correlation
- n= number of pairs of the stock
- ∑xy = sum of products of the paired stocks
- ∑x = sum of the x scores
- ∑y= sum of the y scores
- ∑x² = sum of the squared x scores
- ∑y² = sum of the squared y scores

The results for Pearson product moment correlation were presented as shown in Table 4.2

Table 4. 2: Correlation Between Implementation of Executive Orders & Decrees (IEOD) and Supply Chain Performance

Mean SCP	Mean IEOD
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	Pearson Correlation	1	.339**
Mean SCP	Sig. (2-tailed)		.000
	N	158	158
	Pearson Correlation	.339**	1
Mean IEOD	Sig. (2-tailed)	.000	
	N	158	158

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

KEY: IEOD- Implementation of Executive Orders & Decrees, SCP-Supply Chain Performance.Source: (Field Survey, 2023)

From the results in table 4.10, the Pearson correlation coefficient showed there was a positive significant correlation between Implementation of Executive Orders & Decrees (IEOD) and supply chain performance as shown by (r= 0.339, p<.01). This implied that implementation of executive orders and decrees was positively associated with supply chain performance. Thereafter, a standard multiple linear regression analysis was carried out to establish effect of Implementation of Executive Orders & Decrees (IEOD) on supply chain performance. This was modelled as follows:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \varepsilon_i \dots\dots\dots(3.1)$$

The results are presented in the table below;

Table 4.3: Model Results onEffect of Executive Orders & Decrees on Supply Chain Performance of Public Entities

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.707 ^a	.500	.483	.35496	.500	30.364	1	156	.000
a. Predictors: (Constant), Mean IPPPA, Mean IPPADA2015, Mean IPRS2011, Mean IEOD, Mean IPPDR2016									
Coefficients ^a									
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics		
		B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	.326	.192		1.701	.091			
	Mean IEOD	.112	.043	.160	2.617	.010	.877	1.140	

a. Dependent Variable: Mean SCP

KEY:IEOD- Implementation of Executive Orders & Decrees, SCP-Supply Chain Performance.Source: (Field Survey, 2023)

The findings show that positive correlation (R=.707) between Implementation of Executive Orders & Decrees (IEOD)and supply chain performance in public entities. The R square value (R²=.500, p<.05), which is the coefficient of determination, indicates the amount of variation in supply chain performance that is explained by IEOD. We hence note thatIEOD accounts for 50.0% variance in supply chain performance, leaving the remaining half to be accounted for by other variables not in the model. In adjusting for overestimation through a shrinkage process, the Adjusted R Square (Adjusted R²=.483) which indicates the true population value after controlling for overestimation is obtained. Given a small standard error value that is less than 1, it can be inferred that the model accuracy is high (Shevlyakov & Oja, 2016).

Moreover, the model F statistic is high, $F(5, 152) = 30.364$, and significant at 0.05 implying that there was sufficient evidence of the significant amount of variance in supply chain performance accounted for by IEOD.

Considering the model coefficient results, the standardized coefficients prove that Implementation of Executive Orders & Decrees had significant positive effect on supply chain performance ($\beta = 0.160$, $p < 0.05$), which was also significant at 95% confidence interval. The significant level is sufficient evidence of the effect on supply chain performance of public entities. In practice, the results show that unit improvement in implementation of EOD by practitioners in public entities would improve the supply chain performance by 0.160 units. The unstandardized model coefficients show a constant term ($\beta = 0.326$, $p < 0.05$), which was also significant. Coefficient of this constant term denotes that without including any explanatory construct in the model, performance of supply chains would be an index of 0.326 units. Results of the study are modelled in the equation (4.1);

$$Y = 0.326 + 0.160 X_{IEOD} \dots \dots \dots (4.1)$$

In this, the null hypothesis; H_{01} : Implementation of Executive Orders & Decrees has no significant effect on supply chain performance of public entities in Kenya is rejected, we adopt the alternative hypothesis evidencing significant effect of IEOD on supply chain performance.

The R^2 value ($R^2 = 0.500$, $p < 0.05$) and model coefficient ($\beta = 0.160$, $p < 0.05$) is sufficient evidence (Field, 2005) that IEOD has a statistically significant effect and explains considerable change in supply chain performance of public entities in the Kenyan economy. Findings are congruent with the works of Oduma & Getuno (2017) who surveyed secondary schools in Nairobi City County of Kenya in a bid to assess the effect of procurement regulations on performance of public secondary schools. This study obtained data from procurement staffs who were involved in procurements and store keeping in the schools, making a total of 76 respondents as the target units. The Pearson correlation coefficient (r) examined the relationship between ethical standards, transparency, procurement professionalism, inspection & acceptance and performance and the with the help of SPSS software. Results of this study revealed that compliance to procurement regulation has a significant positive effect with the performance of secondary schools in Nairobi county.

While findings of the study established consonance with other prior scholarly works (Oduma & Getuno, 2017), they however contrast with the findings by Than h *et al.*, (2018) who studied impact of public procurement rules and administrative practices of public procurers on bid rigging in Vietnam. This study used secondary data through a systematic review methodology and showed that using public procurement rules buoyed by administrative practices in public procurement contributes to bid rigging. Specifically, inefficiencies begotten through unnecessary and excessive supplier selection criteria (which limited participation of service providers), regulation of joint bidding, expose of information to unwarranted parties in public procurement, numerous communication with suppliers by purchasing were precepts of bid rigging in the Vietnamese public procurement systems.

V. CONLUSSION

The paper sought to establish effect of IEOD on performance of supply chains of public entities in a developing economy, Kenya. In a standard linear regression analysis, model results show that IEOD has a significant positive effect of supply chain performance, agreeing with empirical establishments. We thus conclude: Improvements in implementation of public procurement executive orders and decrees improves performance of supply chains. The paper provides a primary-quantitative evidence that if governments of developing nations release more orders and decrees in public procurement with effective implementation, then public procurement will raise their economic levels by improving performance of supply chains. Undeniably, we answer the question on whether governments of developing nations should release more public procurement executive orders and decrees, that indeed, the practice of issuing such orders coupled with religious and effective implementation would mean better results in the public sector. We provide interesting discussions that public sector firms can be agents of public value creation through there procurement practices, but then recognize that such efforts can only bear fruits if such firms effectively implement government orders in public procurement.

VI. RECOMMENDATION AND FUTURE RESEARCH AGENDA

The paper divulges from theoretical assertions that have heavily focused on main elements making public procurement laws and highly ignored government orders that effect public procurement practices. We provide sufficient evidence that implementation of executive orders and can alleviate performance of supply chains. In this, the study recommends

to regularly issue public procurement orders. Furthermore, it is recommended that stakeholder in public sector firms to effectively implement public procurement executive orders and decrees. We suggest the following future research lens;

1. Given that the paper is a primary study birthed in quantitative paradigm, future research to focus literature reviews over the last decade whether IEOD has remarkably improved public sector results

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