The Impact of Procurement Practices Encapsulating Planning, Policy and Sustainability on Service Delivery: VRA, Ghana as the Converging Dot

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Abstract

This study was conducted to determine the impact of procurement policy, procurement planning and sustainable procurement on service delivery. The study employed a quantitative research approach and an explanatory design. The target population for the study was the staff and management of the Volta River Authority. A structured questionnaire was used to gather primary data. The study used SPSS version 32.0 for the data analyses. The study found that 73.6% of variations in service delivery were explained by Procurement Policy, Procurement Planning and Sustainable Procurement. The study found that Procurement Policy (β = 0.623 ρ=0.000< 0.05) are significant determinants of service delivery thus a unit change in procurement policy will result in a 62.3% change in service delivery. Procurement Planning (β = 0.027, ρ=0.080< 0.05) are significant determinants of service delivery thus a unit change in procurement planning will result in a 2.7% change in service delivery. Sustainable Procurement (β = 0.39 ρ=0.000 < 0.05) are a significant determinant of service delivery. Thus a unit change in Sustainable Procurement will result in a 39% change in service delivery. From the model estimation, procurement policy was the strongest predictor of service delivery followed by sustainable procurement and lastly procurement planning. The study revealed a strong significant positive correlation between procurement policy and service delivery. Moreover, the result showed a strong significant positive correlation between procurement planning and service delivery. Again the study found a significant positive correlation between sustainable procurement and service delivery. The study concludes that Procurement Policy, Procurement Planning and Sustainable Procurement significantly predict service delivery of VRA. The study recommends that the management of VRA must continuously invest in sustainable procurement, procurement planning and procurement policy to enhance service delivery to the public.

Keywords: *Procurement Practices, procurement planning, procurement policy, Sustainable Procurement, Service Delivery*

1. Introduction

Public sector procurement has become a focus of public attention and deliberation in many countries recently. According to World Bank (1995), Procurement involves the act of purchasing stuff, works and services by an organization utilizing public funds. The practice entails the whole lifespan of activities beginning with need identification, tender evaluation, purchasing and ongoing managing of the contract until the culmination of the contract. According to Ghana Integrity Initiative (2007), procurement has a significant influence on the state of a country in terms of production and consumption of goods and services and money supply and a direct effect on the lives of individuals daily (Ghana Integrity Initiatives, 2007).

Nichols (2002) contends that procurement policy is an utmost important procurement function contributing to the accomplishment of government operations and enhanced service delivery.

Alternatively, Procurement planning being an important procurement practice is one of the factors influencing service delivery. Mullins (2003) affirms that procurement planning contribution in enhancing efficient service delivery is largely undisputed. An efficient procurement system has to have a workforce who are professionally competent and have the requisite savoir-faire for the job as specified (OECD-DAC, 2006). Establishing a procurement unit who are professionally competent and have the right skill is very challenging, given vicissitudes to procurement processes, the expansion of alternative contracting approaches, and increased dependence on services delivered by the private sector (Government Accountability Office, 2005).

Consequently, this research work has identified a limited gap in existing empirical literature as it relates to service delivery addressing procurement related issues in the electricity sector. It is in view of this that the research aims to fill this gap by evaluating the effects of procurement practices on service delivery with VRA, Ghana as a case study.

1.1 Statement of the Problem

According to Trionfetti (2000), a problem associated with the public sector through a careful study becomes essential by recognition of the significance of public organizations as body premeditated to assist the public, along with the imperious for culpability (Trionfetti, 2000). There is limited empirical literature on the effect of procurement practices on service provision especially so with the electricity sector in developing countries. The general objective of this study is to determine the effect of procurement practices on service delivery in the electricity sector, a case study of VRA, which also helps in answering the research questions that necessitated the conduct of this study.

Leni et al. (2012) asserted that despite the increase in resources, delivery of service in the public sector is still decreasing in many developing nations. Consequently, procurement practices such as, procurement policy; sustainable procurement practices and procurement planning are factors that may offer part of the reason. Electrical energy accessibility and mechanical power are essential for meeting all of the MDG (ESMAP, 2002).

1.2 Contribution to the study

This study is significant since undeniably its main purpose is to add to the already prevailing body of knowledge by filling the gap in empirical literature relating to this research topic.

Also, it will be of great importance to the developing countries' public sectors that deal with electricity service delivery especially, the VRA power sector in Ghana.

This study will be designated as a guide to help procurement professionals, various entities; policymakers, etc. make sound procurement decisions and also serve as a source of reference to future researchers in collecting empirical data as it relates to the electricity sector.

1.3 Material and Methods

This study adopted a case study approach with a focus on VRA. Quantitative data was also used for this research study. The numerical data obtained from the field was subjected to quantitative analysis with the use of descriptive statistics and with the help of SPSS and Microsoft version of Excel. To select a representative sample from a target population of 241 employees with 150 respondents as the sample size, a stratified sampling technique was adopted. Likert- Scale questionnaires were designed and administered to Management, procurement staff, Technical Department, finance and audit department within VRA.

1.4 Research Design

Research design is the plan and structure of investigation so conceived as to obtain answers to research questions. Yins (2003) describe research design as that structure that guides the data collection and subsequent analysis. It permits the researcher to connect empirical data to its conclusions to the initial research question in a logical sequence. The design incorporates the problem identification, investigating the problem by collecting data through questionnaires, interviews, data analysis and recommendations. There are several methods of collecting data and their appropriateness and legitimacy hinge on many factors. These factors range from the researcher's scholastic background and respondents to the subject. According to Saunders, Lewis and Thornhill (2007), the data collection method can either be quantitative, qualitative or mixed-method.

1.5 Population of the study

According to Orodho (2003), population refers to the larger group from which a sample is taken. The elements in the population are the direct and indirect beneficiaries of the end product of the research. The target population, on the contrary, is defined as a definite collection to which the researcher is engrossed in making a

sweeping statement on conclusions (Catillo, 2009). The target population should have some discernable physiognomies to which the researcher intends to generate the study results (Mugenda & Mugenda 2010).

For this research, the target populations are 241 employees drawn from Managements, Procurement, Technical departments and Finance and Audit as shown in table 1, who are directly or indirectly involved in decision making and implementation of policy and procurement.

1.6 Sampling Techniques and Size

Sampling is a key component of any investigation and involves several considerations. According to Huber (2008), a sample is a percentage of the research population carefully chosen to partake in a study as a representative of the population. It refers to a set of observations elicit from a population by a defined method. This study employed a stratified sampling technique. The reason for adopting a stratified simple random sampling technique is that in this study, the strata in the target population is heterogeneous; and whose response is vital in achieving the purpose of the study. In order to determine the sample size, the study employed Yamane's formulae, $n= N/ (1 + Ne^2)$ (Yamane 1967:258).

Where:

n =Sample size

N =Target Population (241)

e = error of 5% point

Therefore sample size (n) is calculated below:

$$n = \frac{241}{\{1 + 241(0.05^2)\}}$$

$$n = \frac{241}{\{1 +241(0.0025)\}}$$

$$n = \frac{241}{1.603}$$

n = **150 respondents**

1.2.1 Data Collection Method

1.2.1.1 Primary Data

According to Kothari (2012), primary data are collected anew and for the first time notwithstanding its originality in character. To deal with this, a questionnaire was used to gather the primary data.

1.2.1.2 Questionnaire Method

Self-administered questionnaires were employed where respondents comprising some staff from Management, Procurement department, Technical department, Finance and Audit were presented with the questionnaire to fill themselves. According to Anderson (2011), the questionnaire has a wider coverage area. Kotari (2008) also opined that the questionnaire is cost-effective in terms of finance, time and energy. Likewise, it yields quantitative data which is stress-free in the collection. The reason for using this instrument was to collect different views from different staff in relation to procurement practices and its effect on service delivery. The questionnaire is more confidential and have the upper hand over other instruments since information can be collected from large samples and the chance for biased is drastically minimized. The questionnaire was primarily Likert scale questions where the procurement policy and sustainable procurement practices were adopted from Davis, M. J. (2014) in his research study entitled "Procurement Practices Influencing Service Delivery: A Case of Kenya Power" but the researcher redesigned the procurement planning and service delivery to suit the objectives of the current study in order to solicit answers that would meet the objectives.

1.2.1.3 Secondary Data

These are data that have been collected already by someone else (BELL, 1999) in this case the researcher utilized books, journals, internet search and organization records. Secondary data was useful in discovering the subject of the study and establish the focus of the study before going to the relevant primary source.

1.2.1.4 Data Analysis Method

The raw data acquired from the questionnaire responses were processed and analyzed to attain the needed information from which relevant conclusions could be drawn. The responses from the survey for diverse respondents were coded into Statistical Package for Social Sciences (SPSS) and Excel, Graph and tables were employed as a representative of the outcomes. The following types of analyses were considered in the study: Correlations, regression, relative important index and mode and was presented.

2. Key Concepts Defined

2.1 Public Procurement

According to the World Bank (1995a), public procurement is defined as the act of obtaining or acquiring entity using the consolidated funds. Prier & Mccue, (2009), also define Public procurement as designated legal authority to plan, acquire, deliver, and appraise government's spending on goods and services that are used to accomplish stated aftermaths. Wittig (1998) opined that public procurement starts from basic goods or services like pins or janitorial services to large commercial projects, such as infrastructure development, including highways, power stations and aerodrome. It is an all-inclusive procedure that stems from good procurement planning, budget allocation, bids invitation, bids evaluation, the award of contract, contract management, performance measurement, monitoring, auditing and reporting. The procurement process is often incorporated in the company's corporate or strategic plan because the ability to procure certain materials is a determinant of continuous operation.

2.2 Service Delivery

Service delivery has gained popular interest. Nonetheless, there exists no distinct meaning of the saying service delivery either intentionally or inconsiderately as Oboth (2001) opines. He further hypothesized that, service is coordination or preparation that delivers community needs, while delivery is a periodic act of service. Thus, service delivery is a procedure of a regular act of providing public requirements. In Ghana, public service is the principal effecting device for national development schemes precisely, public services delivery. Therefore it is imperative for the public service to screen in addition to assessing the supply of community service as well as to get responses from services beneficiaries, concerning their competence and efficiency (National Service Delivery Survey, 2008).

2.1 Theoretical Frame Work

Defee et al. (2010) made an indication that, for research to be a good one, it must have its root in a concept (Mentzer et al., 2008). This study is steered by these two theories:

2.2 Institutional Theory

Obanda (2010) propounded that institutional theory is the customary method which is used to scrutinize components of government purchasing. Cultural-cognitive and regulative elements are the basic compositions of institutions that, together with accompanying activities and resources throws more light on life (Scott, 2004). Furthermore, Scott (2004) elucidates the three pillars of institutions as normative, regulatory and cultural-cognitive. The normative refers to norms (ways of behaving) and canons (requirement), shared responsibility being the basis of acquiescence. The regulatory underscores the practice of instructions, decrees and sanctions as implementation process, with decorum as the basis for acquiescence. The cultural-cognitive rests on mutual comprehension. This concept is imperative in relation to the enactment of sustainable procurement policy and practice in service sector organisations. This is a matter of organizational philosophy and the magnitude to which the predominant environment in an organisation is supportive of sustainable and/or of change in general.

In other sense, this aspect includes the extent to which there is support for sustainable procurement at the strategic organizational level and the degree to which organizational practices and hierarchy accelerate or impedes sustainable procurement (Brammer & Walker, 2007).

2.3 Socio-economic Theory

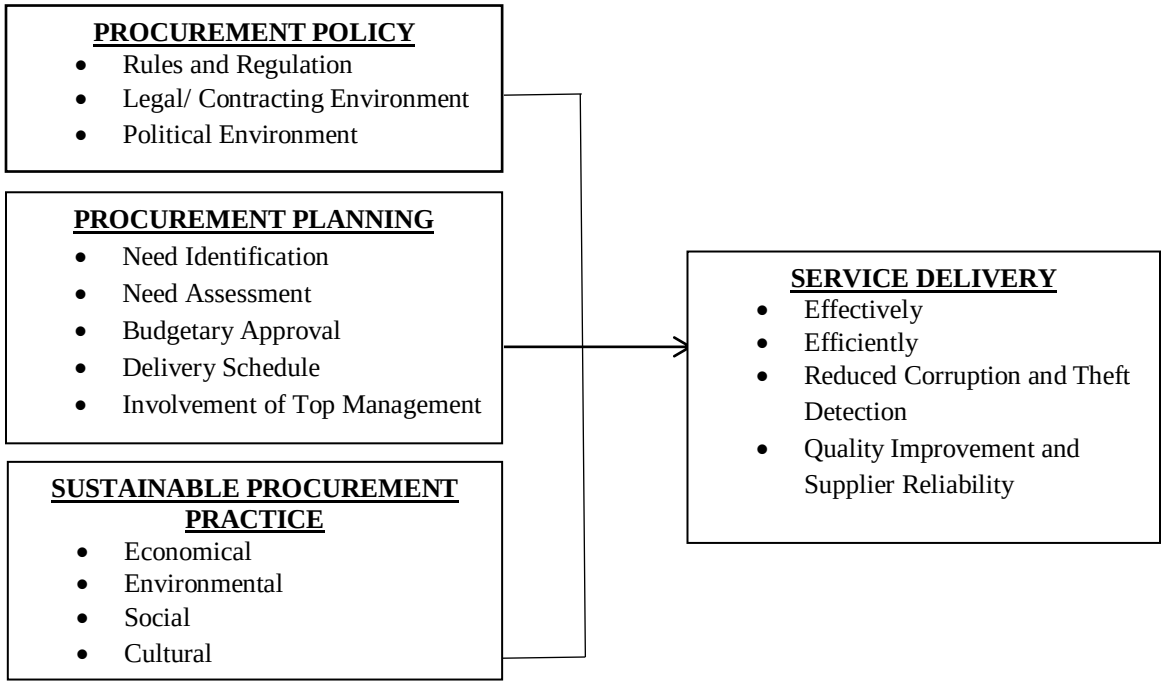
Sutinen and Kuperan (1999) put forward the socio-economic theory of acquiescence by assimilating economic theory with concepts from psychology and sociology as justification for ethical duty and social impetus as determining the factor of one's verdicts on compliance.

Psychological standpoints offer a foundation for the realization and otherwise of organizational acquiescence (Lisa, 2010). Wilmshurst and Frost (2000) also confirmed that the theory of justice hypothesizes that Organisation is liable to unveil its practices to interested parties, exclusively to the public and substantiate its mission within the confines of society. This theory, whose focus is on the affiliation and collaboration between organizations and society, affords a satisfactory lens for comprehending government purchasing systems (Hui et al, 2011). From this theory, one can comprehend the policy, planning and sustainable procurement practices in public institutions and their influence on service delivery to the society.

2.4 Conceptual framework

Mugenda and Mugenda (2003) as a brief description of the phenomenon under study supplemented by a pictorial representation of the variables under study define the conceptual framework. Aside from displaying the roadmap of the study, the researcher through a conceptual framework illustrates the connections between the different constructs that were to be investigated.

Figure 1: **Proposed Conceptual Framework**



Source: *Author's Construct, 2019*

2.5 Procurement Policy and Service Delivery

Nichols (2002) asserts that procurement policy is a principal function of procurement that contributes immensely to government operations successfully and facilitates effective service delivery. Schooner and Whiteman (2000) affirms that procurement policy contributions in facilitating service delivery in an efficient manner are undisputed generally.

Various aspects of procurement policy have a distinct influence on procurement precess (Tkachenko, Yakovlev and Kuznetsova, 2017). For instance, procurement policy that stimulates transparency and integrity in the

procurement cycle positively influenced the procurement process. According to Rehmatulla et al. (2017), procurement entities that have good procurement policies also have better service delivery. Transparency ensures that the procurement of goods, works and services are of high quality and meets the right specification which enables the Organisation to provide quality service. A transparent policy such as E-procurement ensures value for the organization's resources by awarding contracts to suppliers who can provide high-quality services and materials at a reasonable price (Vecchiato and Roveda, 2014).

Thai (2001) developed a model that depicts procurement comprising five key elements which include law formation and administering, authorization and appropriations, purchasing department instructions, procurement function in operations and procurement workforce and feedback.

Arrowsmith (2003), Knight, et al., and Bolton (2006) describe public procurement as a device used for enhancing policies such as organizational and economic improvement and assistant to historically underprivileged groups. From the systems model's perspective, however, such laws could more specifically be termed desired outcomes (either outputs or impacts), which governments attempt to acquire through particular procurement policies. Knights et al. (2003) deployed useful case descriptions and make brief mention of supply policy, but again, their focus was centered on distribution policy as a device for government reform.

Schooner & Whiteman (2002) alternatively use "policies" when referring to principles such as transparency, probity, competition and real value for money.

Consequently, we find that the study of public procurement policy lacks much empirical and theoretical study. Public procurement system as elucidated by Thai (2009) that it needs to be governed by good procurement laws and regulations which will lead to procurement efficiency or inefficiency. Public procurement is essentially a sensitive activity motivated by politics. (Schapper et al., 2006). Pillary (2004) contends that high-ranking officials and political leaders use public office for personal or private gain and this has enfeebled the impetus to remain honest. Raymond (2008) also opined that ministers and politicians entertain bribery and corruption in the procurement process which eventually impedes the process and constrains compliance. Moreover, political influences, according to a study by Lodhia and Burritt (2004), have an important demeanor on public sector reform and that one of the key stumbling blocks to the effectiveness of the procurement system is ministerial nosiness with the tender process where ministers intervene and influence contract awards.

The threat of being suspended or fired has intimidated public officers into obeying illegitimate directives from ministers leading to non-compliance with the public procurement law (Akech, 2005). To confirm this, intrusion from the politicians, business executives, parliamentarians and high profile personalities has interrupted the procurement process and infringe on the principle of transparency in public procurement (Hui et al., 2009).

Conversely, an assertion by Thai (2009) is that aside from public policy governing the public purchasing department, the atmosphere provides a sense of designed worked that guides all the business activities. In the progressing countries and specifically transitional countries where the legal system is not understandable, government projects may be important to be explained on its principles. As "contract management includes all correlations between the Government and the contractor," (Cibinic, Jr. and Nash, Jr., 1995) the legal rights and responsibilities determine the proper course of action. And this is important since VRA outsources and subcontract most of its operations.

Apparently, procurement policy has an effect on service delivery especially electricity service delivery by the very nature and complexity in politics and the law governing all phases of service delivery from the standpoint of the provider and consumer.

2.6 Procurement planning and Service delivery

Basheka (2004) asserts that procurement planning is a key function of procurement with the ability to add to government institutions and promote service provision successfully. Mullins (2003) also stated in his study that procurement planning contributes to the enhancement of service delivery in an efficient and effective manner in public organizational sectors.

Mawhood (1983) further indicates that an important channel towards safeguarding the right service delivery is to ensure effective procurement planning.

An all-encompassing procurement system should have personnel who are professionally trained and are well fortified with the expertise and competent for procurement jobs specified (OECD- DAC, 2006). It is challenging to create a unit or workforce procurement with the right skills and capabilities taken into consideration changes to procurement processes, the introduction or expansion of alternative contracting approaches, and increased reliance service provision by organisations in the private sector (Government Accountability Office, 2005).

The procurement staff unit "permeates virtually every effort within an agency, including successfully acquiring goods and services and executing and monitoring contracts (Government Accountability Office, 2005).

Within the framework of the public procurement, part III section 21 of the public procurement act, 2003(Act663) as amended makes provisions for a detailed and well-structured mechanism for procurement planning for public entities. Major significance is the prerequisite for the procurement plan to contain, among other things, contract packages description or lots, cost estimate, procurement method approval needed and processing steps and times and source of funding.

A study by Brown and Hyer (2010) also asserted that generally, procurement planning includes purpose identification, scope definition, determination of customer requirements, identification of key procurement activities, cost and time estimation, responsibilities assignment etc.

Raymond (2008) also traced the lack of professional and qualified procurement staff in public procurement entities to corruption, which eventually impedes compliance. Effective training enhances the knowledge skills and behaviors of the personnel and their performance. Improved performance will result in increased productivity, improved profit and consequently good results of investing in training (Mullins, 2002).

Mamiro (2010) points out that a major setback related to public procurement is improper or weak planning and controlling of the procuring process including not well identified and estimated needs, unspecific, unmeasurable, unattainable and unrealistic budgets and of the skills of procurement unit staff being woefully inadequate. When decision making is carefully and properly done and formulated, it can provide and serves as an important device for extracting, supplying and assessing resources (James, 2004).

Public entities have always been involved in enormous purchasing, dealing in a huge budget (Roodhooft and Abbeele, 2006). Public procurement is progressively recognised as critical in delivering service in developing countries (Basheka & Bisangabasaiji, 2010), and it also represents a high total expenditure proportionately and accounts for 18.2% of GDP worldwide as noted by Mahmood (2010) in his research. By understanding the procurement processes involved, one may possibly come to the recognition of the real cost involved in attaining goods and services (Bailey et al., 2004).

The use of budget in procurement is one of the best procurement planning strategies. According to Fisher and Corbalan (2013), the procurement budget should correspond to revenues which the company has set aside for procurement activities. The successful budgeting process involves not only the procurement department, but also other departments that require having items and equipment. According to Rolfsam et al (2011), proper specification of equipment and items required by each department is necessary for procurement planning. The departments have to provide budgets that indicate the equipment and items and the quality standards for suppliers to ensure that proper equipment and items are being procured.

2.7 Sustainable Procurement and Service Delivery

Husseni & Shale (2014) assessed the impact of sustainable procurement on service delivery. The study deployed that corporate social responsibility has a significant effect on service delivery. This means that for an organization to acquire social reputation, it has to consider social responsibility as an important practice so that quality products would be produced. It was also established that organizational procurement activities could be sustained through the distribution of good and quality products by organizations. Organizations turn to perform well when it takes the responsibility of producing quality products to society. Individuals in the society always have a taste for good quality products and therefore if the organization is able to produce quality products to satisfy the needs of the individuals, there would be high taste and preference for that particular organization thereby serving as a motivation to organization hence sustaining procurement.

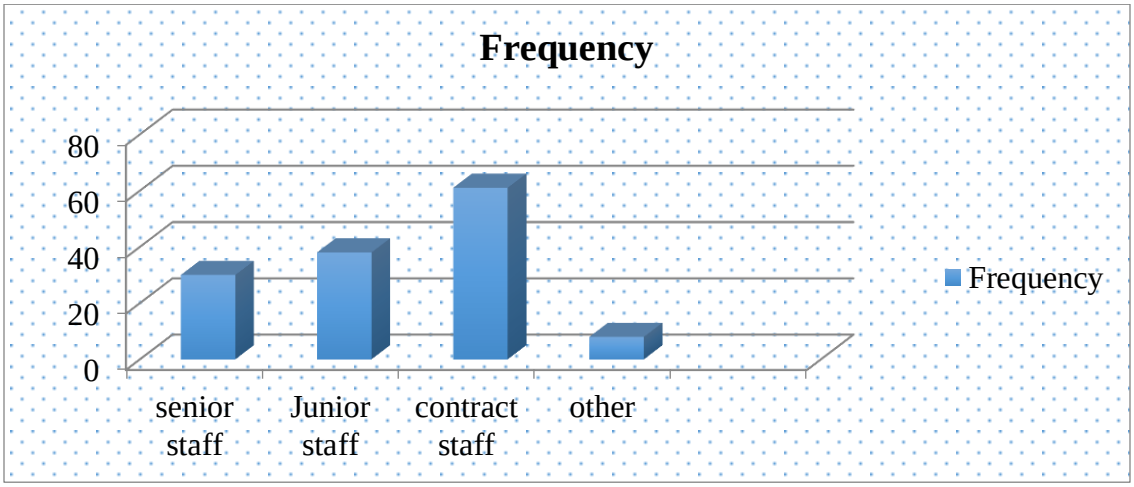
Sarhaye & Marendi (2017) assessed sustainable green procurement and its influence on the performance of the organization. From the study conducted, it was revealed that sustainable green procurement has a positive relation with service delivery. In this context, service delivery is influenced by its procurement level. The ability of an organization to purchase all its needs to meet its activities ensures a high productivity level. Thus, adequate logistics and tools in an organization enable it to utilize its resources to meet the required needs sufficiently. There is high production hence high consumer procurement. The study also indicated that there is a major relation between suppliers and production companies. An organization's performance is promoted when it is able to produce quality goods for suppliers to distribute them on the market. Frequent consumption of organizations' products improves the profitability yields of the organization hence sustains organizations' procurement. Also, organizations' resource has a significant impact on its activities. This is because resource management ensures high economic benefit hence improves service delivery.

3. DATA, ANALYSES AND DISCUSSIONS

The analysis and discussion emphasis the results on the effect of procurement practices on service delivery. The effects of procurement practices on service delivery had been explored using regression and Pearson correlation. Also, included in the analyses were important relative index, mode, means and standard deviation.

3.1 Respondents Position at the Company

Figure 2 presents the position of respondents in the company. The results show that 61(44.5%) of the respondents are contract staff, 38(27.7%) of the respondents are junior staff, 30(21.9%) are senior staff and 8(5.8%) of the respondents belong to other groups.

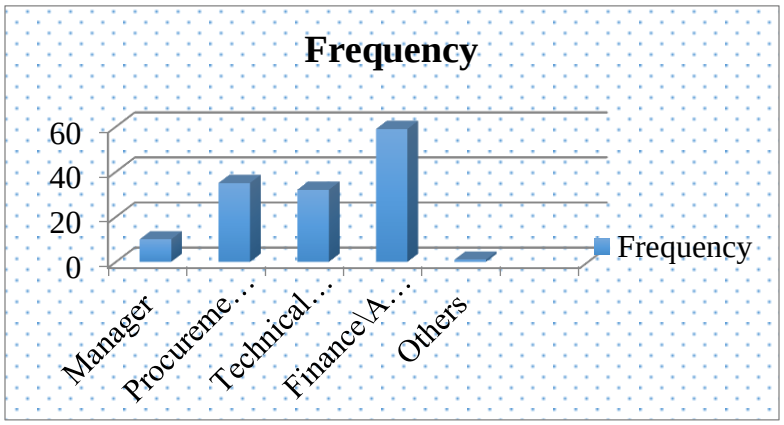


Source: Field Survey, 2019

Figure 2: Respondents Position at the Company

3.2: Job Designation/Department

Figure 2 presents the job design or department of respondents. The study finds that 59 (43.1%) of the respondents are in the finance/audit department, 35(25.5%) of the respondents are in the procurement department, 32 (23.4%) are in the technical department with 10(7.3%) being managers and 1(0.7%) belonging to other departments.

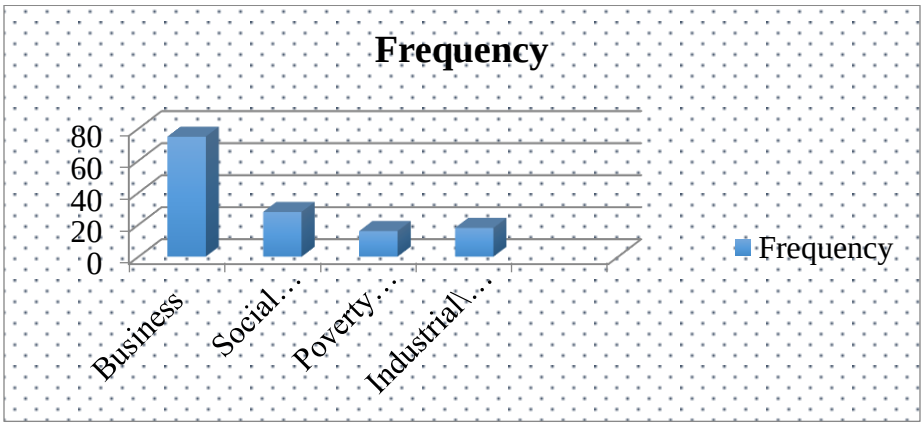


Source: Field Survey, 2019

Figure 3: Job Designation/Department

3.3: Electricity Connectivity throughout Ghana to the General Public

Figure 4 shows the perception of electricity connection throughout Ghana. The study shows that majority 75(54.7%) of the respondents viewed electricity connectivity to the Ghanaian public as business, 28(20.4%) of the respondents stated that it is a social obligation, 18(13.1%) view electricity connectivity to be industrial/economic growth and 16(11.7%) viewed electricity connectivity as poverty reduction.



Source: Field Survey, 2019

Figure 4: Electricity Connectivity throughout Ghana to the General Public

3.4 Procurement Policy

Procurement policy has been described herein using means and standard deviations. The study used 5-point likert scale where a mean of 5 suggests that respondents strongly agree to the item, mean of 4suggests that respondents agree to the item, a mean of 3- suggests that respondents are undecided, a mean of 2- suggests that respondents disagree to the item and a mean of 1- suggests that respondents strongly disagree to the item.

Table 1.: Descriptive Statistics on Procurement Policy

Statements	SA	A	N	D	SD	Mode
Procurement Policy						
VRA has its own procurement policy that governs all procurement and contract activities.	0.2%	13.1%	10.2%	21.9%	44.5%	2
All procurement activities within VRA are governed by the Public procurement Act 663 as amended.	40.9%	45.3%	10.9%	2.9%	-	4
VRA's top management viewed the procurement functions as important as any other department within the company to help it achieve the missions and obligations of the company operations	32.8%	44.5%	17.5%	5.1%	-	4
Procurement decisions are influenced by the managing director/ CEO.	25.5%	48.9%	21.2%	2.9%	1.5%	4
Rules And Regulation Flexibility						
The public procurement rules and regulations are hampering the operations of the company for speedy acquisition of goods and services or contractual arrangements	17.5%	43.8%	32.8%	4.4%	1.5%	4
The procurement function within VRA is influenced by the public procurement act 663 as amended.	17.5%	47.4%	27.7%	2.9%	2.9%	4
Legal/Contracting Environment						
The contract between VRA and other subcontractors are considered on the basis of cost transfers that could affect the cost of connection by the poor to the electric grid.	19.0%	49.6%	23.4%	6.6%	1.5%	4
Contracting practices are the main reasons leading to a higher cost of connection throughout Ghana.	29.2%	49.6%	18.2%	2.9%	-	4
Contractor charges are too high for contract VRA subcontract or outsource and that is the reason leading to the high cost to the customer especially the areas with poor infrastructure.	29.9%	42.3%	21.9%	2.9%	2.9%	4
The contractors sometimes cause problems when it comes to contract completions as well as implementations on time and that is leading to the issues with slow service to some communities.	22.6%	43.1%	29.9%	2.9%	1.5%	4
Contractors are not paid on time and this is making things difficult for the	17.5%	61.3%	19.7%	-	1.5%	4

procurement department to maintain good suppliers and that is a factor leading to higher charges for those that want to take the risk.						
Political Environment						
VRA's procurement spending is not managed nor influenced by the company's procurement managers or department.	20.4%	57.7%	20.4%	1.5%	-	4

Source: Field Survey, 2019.

Table 2 presents the descriptive statistics on procurement policy. The survey shows that with procurement policy, the majority of the respondents (Mode=2) disagreed that VRA has its own procurement policy that governs all procurement and contract activities. The majority of the respondents (Mode=4) agreed that all procurement activities within VRA are governed by the public procurement Act 663 as amended. Also, the majority of the respondents (Mode=4) agreed that VRA's top management viewed the procurement functions as important as any other department within the company to help it achieve the missions and obligations of the company operations. Moreover, a moderate number of respondents (Mode=4) indicated that procurement decisions are influenced by the managing director/CEO. With rules and regulations flexibility, more than half of the respondents (Mode=4) agreed that the public procurement rules and regulations are hampering the operations of the company for speedy acquisition of goods and services or contractual arrangements and more than half of the respondents (Mode=4) showed that the procurement function within VRA is influenced by the public procurement act 663 as amended.

Regarding the legal/contracting environment, more than half of the respondents (Mode=4) agreed that contracting between VRA and other sub-contractors are considered on the basis of cost transfer that could affect the cost of connection by the poor to the electric grid. More so, the majority of the respondents (Mode=4) agreed that contracting practices are the main reasons leading to a higher cost of connection throughout Ghana. Above-average of the respondents (Mode=4) showed that contractor charges are too high for contract VRA subcontract or outsource and that is the reason leading to the high cost to the customer especially the areas with poor infrastructures. Moving on, above the average of the respondents (Mode=4) agreed that the contractors sometimes cause problems when it comes to contract completions as well as implementations on time and that is leading to the issues with slow service to some communities. Again, more than average of the respondents (Mode=4) stated that contractors are not paid on time and this is making things difficult for the procurement department to maintain good suppliers and that is a factor leading to higher charges for those that want to take the risk. Lastly, with respect to the political environment, more than half of the respondents (Mode=4) agreed that VRA's procurement spending is not managed nor influenced by the company's procurement managers or department.

3.5 Procurement Planning

Procurement planning has been described herein using means and standard deviations. The study used 5-point likert scale where a mean of 5 suggests that respondents strongly agree to the item, mean of 4suggests that respondent agree to the item, a mean of 3- suggests that respondents are undecided, a mean of 2- suggests that respondent disagree to the item and a mean of 1- suggests that respondents strongly disagree to the item.

Table 2: Descriptive Statistics on Procurement Planning

Statements	SA	A	N	D	SD	Mode
Need Identification						
VRA procures based on needs identification initiated by user departments.	19.7%	51.8%	17.5%	9.5%	1.5%	4
Purchases are made based on materials planned to ensure that items purchased are on schedule	16.1%	42.5%	17.5%	7.3%	16.8%	4
VRA decides whether to produce the goods or services in-house or source them externally.	17.5%	48.2%	30.7%	3.6%	-	4
Decisions are taken on funding the applicable procurement rules and method	26.3%	46.0%	21.9%	2.9%	2.9%	4
VRA prepares a timetable for procurement process to serve as a guideline	26.3%	55.5%	16.8%	1.5%	-	4

Source: Field Survey, 2019. *Where SA=Strongly Agree; A=Agree; N=Neutral; D=Disagree; SD=Strongly Disagree*

Table 2 presents procurement planning. With needs identification, the study found that slightly above half of the respondents (Mode=4) confirmed that VRA procures based on needs identification initiated by user departments. Also, the study discovered that half of the respondents (Mode=4) stated that purchases are made based on materials planning ensuring that items purchased are on schedule with more than half of the respondents (Mode=4) showed that VRA decides whether to produce the goods or services in-house or source them externally. Also, more than an average of the respondents (Mode=4) indicated that decisions are taken on funding the applicable procurement rules and method and the majority of the respondents (Mode=4) strongly agreed that VRA prepares a timetable for the procurement process to serve as a guideline.

3.6 Sustainable Procurement

Sustainable Procurement has been described herein using means and standard deviations. The study used 5-point likert scale where a mean of 5 suggests that respondents strongly agree to the item, mean of 4suggests that respondent agree to the item, a mean of 3- suggests that respondents are undecided, a mean of 2- suggests that respondent disagree to the item and a mean of 1- suggests that respondents strongly disagree to the item.

Table 3: Descriptive Statistics on Sustainable Procurement

Statements	SA	A	N	D	SD	Mode
Sustainable Procurement						
VRA does not have a sustainable procurement policy	13.9%	52.6%	18.2%	12.4%	2.9%	4
We don't have understanding of what sustainable procurement practices are	8.8%	13.1%	8.8%	5.8%	63.5%	1
Sustainable procurement is not important to the realization of the VRA's mission and obligations	5.8%	13.1%	10.2%	16.1%	54.7%	1
Corporate social responsibility is the only aspect of sustainable procurement practices that VRA applies to society	10.2%	13.1%	10.2%	21.9%	44.5%	1

Due to the effect of sustainable procurement practices on our budgetary allocations and owing to the high cost of sustainable goods and materials on the market, we don't consider sustainable procurement practices.	40.9%	45.3%	10.9%	2.9%	-	4
Lack of sustainable materials for the electricity sector for our operations hinders the application of sustainable procurement practices	32.8%	44.5%	17.5%	5.1%	-	4
Economical						
We do not consider the economical aspect of sustainable procurement in the procurements or contract decisions.	25.5%	48.9%	21.2%	2.9%	1.5%	4
Environmental						
The environmental aspects of sustainable procurement have high cost implication and so we don't consider it in our procurement or contracting decision	17.5%	43.8%	32.8%	4.4%	1.5%	4
Social						
The social aspects of sustainable procurement have a lot of monitoring and cost implication-delivery and so we don't consider it in the procurement or contracting decisions	17.5%	47.4%	27.7%	2.9%	4.4%	4
Cultural						
The cultural lifestyle of the rural community makes it challenging for VRA to apply sustainable procurement practices within the procurement or contracting decision	19.0%	49.6%	23.4%	6.6%	1.5%	4

Source: Field Survey, 2019.

Table 3 presents sustainable procurement. From the table, the majority of the respondents (Mode=4) agreed that VRA does not have a sustainable procurement policy. On the contrary, most of the respondents (Mode=1) strongly disagreed that they do not have an understanding of what sustainable procurement practices are and similarly, most of the respondents (Mode=1) strongly disagreed that sustainable procurement is not important to the realization of the VRA's mission and obligations. Also, most of the respondents (Mode=1) strongly disagreed that corporate social responsibility is the only aspect of sustainable procurement practices that VRA applies to the society and majority of the respondents (Mode=4) agreed that due to the effect of sustainable procurement practices on our budgetary allocations and owing to the high cost of sustainable goods and materials on the market, we don't consider sustainable procurement practices. More so, the majority of the respondents (Mode=4) agreed that the lack of sustainable materials for the electricity sector for our operations hinders the application of sustainable procurement practices. Moving on, more than half of the respondents (Mode=4) agreed that they do not consider the economic aspect of sustainable procurement in the procurements or contract decisions. In the same way, more than the average of the respondents (Mode=4) indicated that the environmental aspects of sustainable procurement have high cost implication and so they do not consider it in their procurement or contracting decision. Moreover, majority of the respondents (Mode=4) agreed that the social aspects of sustainable procurement have a lot of monitoring and cost implication and so they do not consider it in the procurement or contracting decisions and most of the respondents (Mode=4) agreed that the cultural lifestyle of the rural community makes it challenging for VRA to apply sustainable procurement practices within the procurement or contracting decision.

3.7 Service Delivery

Service delivery has been described herein using means and standard deviations. The study used 5-point likert scale where a mean of 5 suggests that respondents strongly agree to the item, mean of 4suggests that respondent agree to the item, a mean of 3- suggests that respondents are undecided, a mean of 2- suggests that respondent disagree to the item and a mean of 1- suggests that respondents strongly disagree to the item.

Table 4: Descriptive Statistics on Service Delivery

Statements	SA	A	N	D	SD	Mode
Efficiency and Effectiveness						
VRA ensures procurement system operates in a timely manner within a minimum bureaucracy with the involvement of top management and delivery schedules	29.2%	49.6%	18.2%	2.9%	-	4
Through policy reviews, delivery checking, and supplier audits, VRA is able to achieve efficiency in terms of value for money	29.9%	42.3%	21.9%	2.9%	2.9%	4
VRA is able to achieve procurement effectiveness through system reviews and supplier evaluation	22.6%	43.1%	29.9%	2.9%	1.5%	4
Reduced Corruption and Theft Detection						
Through examination of the procurement cycle, VRA is able to reduce corruption and also detect theft	17.5%	61.3%	19.7%	-	1.5%	4
Quality Improvement and Supplier Reliability						
VRA is assured of quality improvement and supplier reliability through supplier audit and supplier evaluation	40.9%	43.8%	13.1%	2.2%	-	4

Source: Field Survey, 2019. *Where SA=Strongly Agree; A=Agree; N=Neutral; D=Disagree; SD=Strongly Disagree*

Table 4 presents the service delivery of respondents. The survey discovered that with efficiency and effectiveness, the majority of the respondents (Mode=4) stated that VRA ensures the procurement system operates in a timely manner within a minimum bureaucracy with the involvement of top management and delivery schedules. Most of the respondents (Mode=4) agreed that through policy reviews, delivery checking, and supplier audits, VRA is able to achieve efficiency in terms of value for money and a greater proportion of respondents (Mode=4) agreed that VRA is able to achieve procurement effectiveness through system reviews and supplier evaluation. Regarding reduced corruption and theft detection, most of the respondents (Mode=4) agreed that through examination of the procurement cycle, VRA is able to reduce corruption and also detect theft and with quality improvement and supply reliability, majority of the respondents (Mode=4) agreed that VRA is assured of quality improvement and supplier reliability through supplier audit and supplier evaluation.

3.8 Effect of Procurement Policy, Procurement Planning and Sustainable Procurement on Service Delivery

The study had employed a Pearson correlation to assess the presence of multicollinearity in the estimated regression model. Variance Inflation Factor (VIF) scores were all less than ten (VIF < 10). Tolerance statistics were all less than one.

Table 5: Correlation

		Procurement Policy	Procurement Planning	Sustainable Procurement	Service Delivery
Procurement Policy	Pearson Correlation				
	Sig. (2-tailed)				
Procurement Planning	Pearson Correlation	0.588			
	Sig. (2-tailed)	0.000			
Sustainable Procurement	Pearson Correlation	0.709	0.134		
	Sig. (2-tailed)	0.000	0.120		
Service Delivery	Pearson Correlation	0.725	0.553	0.195	
	Sig. (2-tailed)	0.000	0.000	0.022	

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

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

The study revealed a strong significant (r = 0.72, p-value < 0.05) positive correlation between procurement policy and services delivery. Moreover, the result showed that a strong significant (r = 0.55, p-value < 0.05) positive correlation between procurement planning and service delivery. Again the study found a weak significant (r = 0.19, p-value < 0.05) positive correlation between sustainable procurement and services delivery. The results revealed that serial correlation was not found in the study. More so, the relationship between the control variables and the dependent variable. However, weak associations were found among the control variables. These further suggested that there were no noticeable serial correlations in the study.

Table 6: Results of Regression

Model	Unstandardized Coefficients		Standardized Coefficients	*T-statistic*	*P-Value*	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.913	1.109		6.231	0.000		
Procurement Policy	0.623	0.043	1.289	14.460	0.000	0.250	4.005
Procurement Planning	0.027	0.016	-0.111	1.744	0.083	0.493	2.028
Sustainable Procurement	0.395	0.041	-0.704	9.674	0.000	0.375	2.669
R Square			0.736				
Adjusted R Square			0.730				
Df			3				
F-Statistic			123.594				
P-Value			0.000				

a. Dependent Variable: Service Delivery

The regression model employed in this study was fit (F-*statistics* = 123.59, *p-value* 0.000 < 0.05). Thus the 73.6% (R-Square) variations in service delivery were explained by Procurement Policy, Procurement Planning and Sustainable Procurement.

4. Major Finding

Effect of Procurement Policy, Procurement Planning and Sustainable Procurement on Service Delivery

The study found that 73.6% (R-Square) variations in service delivery were explained by Procurement Policy, Procurement Planning and Sustainable Procurement. The study found that Procurement Policy ($\beta = 0.623$ $\rho=0.000< 0.05$) Procurement Planning ($\beta = 0.027$, $\rho=0.080< 0.05$) and Sustainable Procurement ($\beta = 0.39$ $\rho=0.000 < 0.05$) were significant determinants of service delivery. The study revealed a strong significant ($r = 0.72$, p-value < 0.05) positive correlation between procurement policy and services delivery. Moreover, the result showed that a strong significant ($r = 0.55$, p-value < 0.05) positive correlation between procurement planning and service delivery. Again the study found a strong significant ($r = 0.19$, p-value < 0.05) positive correlation between sustainable procurement and services delivery. The results revealed that serial correlation was not found in the study. More so, the relationship between the control variables and the dependent variable. However, weak associations were found among the control variables.

5. Recommendations

The study found that VRA does not have its own procurement policy that governs all procurement and contract activities hence all procurement activities within VRA are governed by the public procurement Act 663 but the public procurement rules and regulations are hampering the operations of the company for speedy acquisition of goods and services or contractual arrangements. The researcher recommends that VRA as a company should be given the autonomy to develop its own procurement policies that will be binding on all purchasing activities. This will help to facilitate transactions and promote day-to-day activities.

Also, the study recommends that there must be a procurement planning team that will focus on entering into transactional and contractual agreements to ensure that all immediate and future procurement activities of VRA are properly planned. This planning process will take into consideration the variables that control the industry they operate in to be able to develop the needed approach to conduct procurement. According to the findings of the study, there are no top management guides to the procurement planning processes of VRA and top management in the procurement planning does not help to plan very well to suit or benefit the VRA.

The study further recommends that VRA should integrate sustainability into their operations. The concept of sustainability ensures that wastage is avoided while efficiency becomes paramount to companies. Integrating sustainability into VRA has the capacity to create long-lasting partnerships with the group of people they serve and increase their profit margins. The general work ethics of employees should be embedded with sustainability practices so that sustainability will become the hallmark of VRA. The recommendation links to the finding that VRA does not have a sustainable procurement policy and employees have no understanding of what sustainable procurement practices are.

Finally, the study recommends that VRA should adopt and integrate technology into their operations to promote transparency in the delivery of their mandate. Developing an integrated database for VRA offices across the country will reduce the invisible barriers that encourage bribery and corruption at their centers. Technology creates the avenue to become accountable since records are stored in a unified system and can be accessed at any point in time. The study found that through an examination of the procurement cycle, VRA will be able to reduce corruption and also detect theft to ensure quality improvement and supply reliability.

6. Conclusions

This study was conducted to determine the effect of procurement policy, procurement planning and sustainable procurement on service delivery. The study found that 73.6% (R-Square) variations in service delivery were explained by Procurement Policy, Procurement Planning and Sustainable Procurement. The study found that Procurement Policy ($\beta = 0.623$ $\rho=0.000< 0.05$) are significant determinants of service delivery; thus, a unit change in procurement policy will result in a 62.3% change in service delivery. Procurement Planning ($\beta = 0.027$, $\rho=0.080< 0.05$) are significant determinants of service delivery; thus, a unit change in procurement planning will result in a 2.7%% change in service delivery. Sustainable Procurement ($\beta = 0.39$ $\rho=0.000 < 0.05$) are a significant determinant of service delivery. Thus a unit change in sustainable procurement will result in a 39 % change in service delivery. From the model estimation procurement policy was the strongest predictor of service delivery, followed by sustainable procurement and, lastly, procurement planning. The study revealed a strong significant ($r = 0.72$, p-value < 0.05) positive correlation between procurement policy and services delivery. Moreover, the result showed that a strong significant ($r = 0.55$, p-value < 0.05) positive correlation between procurement planning and service delivery. Again the study found a strong significant ($r = 0.19$, p-value < 0.05) positive correlation between sustainable procurement and services delivery. The results revealed that serial correlation was not found in the study. More so, the relationship between the control variables and the dependent variable. However, weak associations were found among the control variables.

References

i. *Anderson, L. (2011). Research in Education. Sydney: Allen Unwin.*

ii. *Basheka, B. C. and Bisangabasaija, E. (2010). Determinants of unethical public procurement in local government systems of Uganda: a case study. Int. J. Procurement Management, 3(1), 91-104.*

iii. *Davis, M. J. (2014). Procurement Practices Influencing Service Delivery: A Case of Kenya Power. European Journal of Logistics Purchasing and Supply Chain Management, Vol. 2 No. (3), pp. 79-137.*

iv. *ESMAP (UNDP/World Bank Energy Sector Management Assistance Programme). (2002a).*

v. *Government Accountability Office (2005). Framework for Assessing the Acquisition Function at Federal Agencies (GAO-05-218G). Washington, DC: Author. Government of Uganda (2006). The Local Government (Amendments) Act, 2006. Kampala, Uganda: Author.*

vi. *Ghana Integrity Initiative, (2007). Quarterly Newsletter, Issue Number 23 - December,*

vii. *Huber, D. (2008). "Sample size in research". New York: The Free Press.*

viii. *Hussein, I. M. R. & Shale, I. N. (2014). Effects of sustainable procurement practices on organisational performance in manufacturing sector in Kenya: a case of Unilever Kenya Limited. European Journal of Business Management, 1 (11), 417-438*

ix. *Kothari, R.C. (2008). Research Methodology; Methods and Techniques. 2nd edition, New Age International Publishers; New Delhi.*

x. *Leni W., Victoria C., Maia K., and Dan H., (2012). Common constraints and incentive problems in service delivery. Overseas Development Institute.111 Westminster Bridge Road London SE1 7JD. UK.www.odi.org.uk.*

xi. *Mullins, D.R., (2003). Accountability and Coordination in a Decentralized Context: Institutional, Fiscal and Governance Issues. Washington, DC: American University.*

xii. *Mugenda, O. M., & Mugenda, A. G., (2003). Research methods: Quantitative & qualitative approaches. Nairobi: African Centre for Technology Studies.*

xiii. *Nichols, P. (2002). Regulating Transnational Bribery in Times of Globalization and Fragmentation. The Yale Journal of Internal law, 24(1), 257-304.*

xiv. *Oboth, M. J. (2001). Decentralization and service delivery: Constraints and controversies. Kampala: Makerere University Library*

xv. Organization Economy Corporation Development-Development Assistance Commssion (2006). Methodology for Assessment of National Procurement Systems. Paris, France: OECD.

xvi. Preuss, L. (2009). Addressing sustainable development through public procurement: the Case of local government, supply chain management, Vol.14 No.3, p.213

xvii. Prier, E., & McCue, C. P. (2009). "The Implications of a Muddled Definition of Public Procurement." Journal of Public Procurement, 9(3&4): 326–370

xviii. Sarhaye, A. S. & Marendi, N. P. (2017). Role of green procurement on organisational performance of manufacturing firms in Kenya: A case of coca cola company. The Strategic Journal of Business & Change Management, Vol. 4, Iss. 3(7), pp. 85-102

xix. Trionfetti, F. (2000). "Discriminatory public procurement and international trade", World Economy, Vol. 23 No.1, pp.57-76

xx. World Bank (1995a). Guidelines: Procurement under IBRD Loans and IDA Credits, World Bank, Washington, D.C. World Bank Country Procurement Assessment Report, (2001).

xxi. Yamane, Taro. 1967. Statistics, An Introductory Analysis, 2nd Ed., New York: Harper and Row.

xxii. Yin, R. K. (2003). Case Study Research: design and methods', Applied Social Research Methods Series, Vol.5, London, Sage Publications.