



The Effect of Procurement Practices on Service Delivery: A Case Study of VRA, Ghana

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Authors' contributions

This work was carried out in collaboration among all authors. Author AA designed the study, performed the statistical analysis and wrote the protocol as well as the first draft of the manuscript. Authors AA and VA managed the analyses of the study. Author GA managed the literature search. All authors read and approved the final manuscript.

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ABSTRACT

This study was conducted to determine the effect of procurement policy, procurement planning and sustainable procurement on service delivery. The study employed a quantitative research approach and explanatory design. The target population for the study was staff and management of the Volta River Authority. 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% variations in service delivery were explained by Procurement Policy, Procurement Planning and Sustainable Procurement. The study found that Procurement Policy ($\beta = 0.623$ $p=0.000 < 0.05$) are significant determinants of service delivery thus a unit change in procurement policy will result in 62.3% change in service delivery. Procurement Planning ($\beta = 0.027$, $p=0.080 < 0.05$) are significant determinants of service delivery thus a unit change in procurement planning will result in 2.7% change in service delivery. Sustainable Procurement ($\beta = 0.39$ $p=0.000 < 0.05$) are a significant determinant of service delivery.

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Thus a unit change in Sustainable Procurement will result in 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.

1. INTRODUCTION

Public sector procurement has become a focus of public attention and deliberation in many countries recently. Van Weele [1] defines procurement as all undertakings that are required in order to get the product/service from the supplier to its final destination. The practice entails the whole lifespan of activities beginning with need identification, tender evaluation, purchasing and ongoing managing of contract until the culmination of the contract. According to Ghana Integrity Initiative [2], 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) [2].

Nichols [3] 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 [4] 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) [5]. 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) [6].

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, [7] problem associated with 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) [7]. 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. [8] 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) [9].

1.2 Significant of 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, 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.

2. THEORETICAL FRAMEWORK

Defee, et al. [10] made an indication that, for research to be a good one, it must have its root in a concept Mentzer, et al. [11]. This study is steered by these two theories:

2.1 Institutional Theory

Obanda [12] 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) [13].

Furthermore, Scott [13] 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 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 strategic organizational level and the degree to which organizational practices and hierarchy accelerate or impedes sustainable procurement (Brammer & Walker) [14].

2.2 Socio-economic Theory

In considering economics and psychology as rationale for ethical duty and the social motivation as deciding variable to one's verdicts on adherence, Sutinen and Kuperan [15] proposed socioeconomic theory of acquiescence.

Psychological views provide a framework for obtaining organizational agreement and otherwise (Lisa) [16]. Wilmshurst and Frost [17] also confirmed that the Socio-economic theory assumes that the Organization can expose its practices solely to the public and justify its mission within society's bounds.

In order for the government procurement processes to be recognized (Hui, et al.) [18] this concept, whose emphasis is on affiliating and working between organization and society.

The theory allows us to understand policy, plan and practices in public institutions with sustainable procurement and their influence on the provision of services to society.

3. CONCEPTUAL FRAMEWORK

Mugenda and Mugenda [19] as a brief description of the phenomenon under study supplemented by a pictorial representation of the variables under study define 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.

3.1 Procurement Policy and Service Delivery

Schooner and Whiteman [20] 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 process (Tkachenko, Yakovlev and Kuznetsova) [21]. For instance, procurement policy that stimulates transparency and integrity in the procurement cycle positively influenced the procurement process. According to Rehmatulla, et al. [22], 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) [23].

Thai [24] 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, [25] and Bolton [26] describes 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 a particular procurement policies. Snider, et al. [27] deployed a useful case descriptions and made brief mention of supply policy, but again, their focus was centered on distribution policy as a device for government reform.

Sollish & Semanik [28] 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 [29] 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. [30]. Pillary [31] 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. Moreover, political influences, according to a study by Lodhia and Burritt [32] 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 of the public procurement law (Akech) [33]. 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 Tukamuhabwa, et al. [34].

Conversely, an assertion by Akech [33] 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. [35] 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 law governing all phases of service delivery from the standpoint of the provider and consumer.

3.2 Procurement Planning and Service Delivery

Basheka [36] asserts that procurement planning is a key function of procurement with the ability to add to government institutions and promote service provision successfully. Mullins [4] 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 [37] 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) [5]. 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) [6].

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) [6].

Within the framework of the public procurement, part III section 21 of the public procurement act, 2003 (Act 663) 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 [38] 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 [39] also traced the lack of professional and qualified procurement staffs in public procurement entities to corruption, which eventually impedes compliance. Effective training enhances 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 [4].

Mamiro [40] 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, [41].

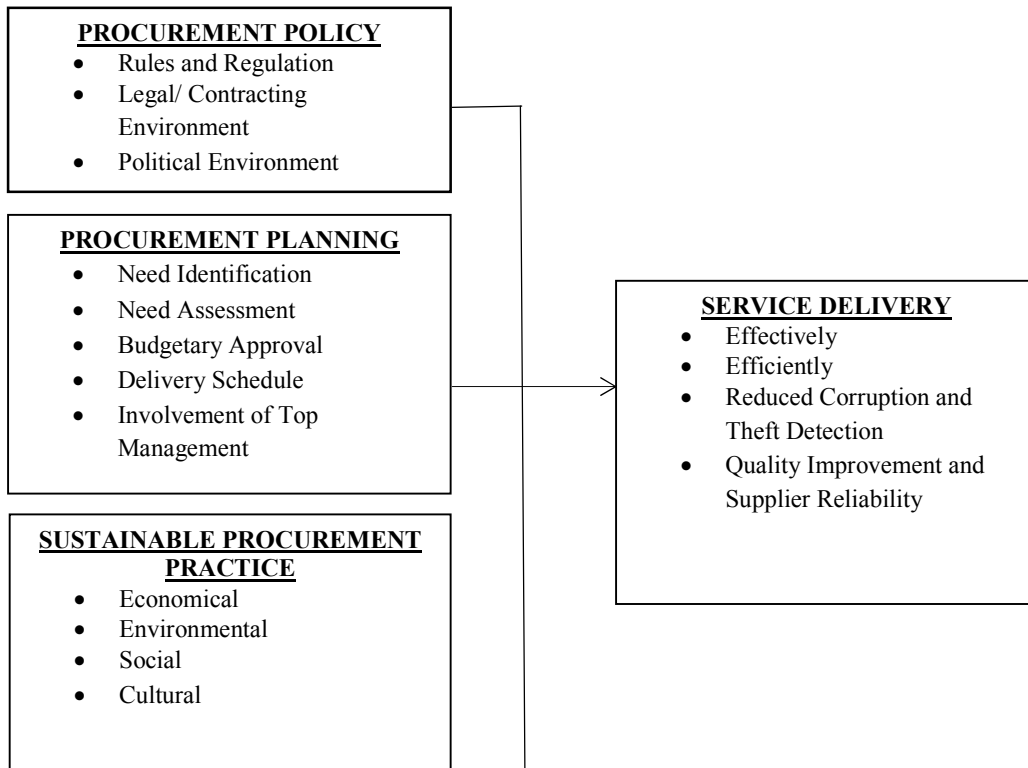


Fig. 1. Proposed conceptual framework
Source: Authors' Own Construct, 2019

Public entities have always been involved in enormous purchasing, dealing in huge budget (Roodhooft and Abbeele) [42]. Public procurement is progressively recognised as critical in delivering service in developing countries (Basheka & Bisangabasaiji) [36] and it also represents proportionately a high total expenditure and accounts for 18.2% of GDP worldwide as noted by Mahmood [37] 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 Batley, et al. [43].

The use of budget in procurement is one of the best procurement planning strategy. According to Fisher and Corbalan [44], the procurement budget should correspond to revenues which the company has set aside for procurement activities. Successful budgeting process not only involves the procurement department, but also other departments that require having items and equipment. According to Onyango [45], proper specification of equipment and items required by each department is necessary in procurement planning. The departments have to provide budgets which indicate the equipment and items and the quality standards for suppliers to ensure that proper equipment and items are being procured.

3.3 Sustainable Procurement and Service Delivery

Husseni & Shale [46] 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 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 can 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 the society. Individuals in the society always have a taste for good quality products and therefore if 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.

David & Muthini [47] assessed the Influence of green supply chain management practices on procurement performance of private health institutions in Kenya. From the study conducted, it was revealed that green sustainable procurement has a positive relation with service delivery in the health sector. In this context, service delivery is influenced by its procurement level. The ability for an organization to purchase all its need to meet its activities ensures high productivity level. Thus, adequate logistics and tools in an organization enable it to sufficiently utilize its resources to meet the required need. 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.

Nyoike & Ismail [48] examined the effect of sustainable procurement practices on service delivery. The study revealed that making an assessment on procurements by managers of organizations would ensure effective procurement practices. In the critical view, organization is able to manage its profitability yields more efficiently when it is able to craft a conceptual schedule based on the order of priorities. Through this process, the organization is able to meet all that is required and needs to be purchased to enable it to run all its activities. With this, it is able to take control of all expenses that are deployed into purchasing logistics and other equipments thus improve its procurement activities. Again, the introduction of modern technology in the organization enables decision-makers to save cost and enhances service delivery. The study also showed that organizational integration and collaborations help bring togetherness among workers and therefore individual collaborations ensure well interrogations and agreement on a particular need thereby promotes organizations' procurement practices.

Murutu [49] investigated the influence of sustainable procurement strategies on supply chain performance. The assessment revealed

that there is a positive relationship between sustainable procurement techniques and distribution chain performance. This deployed that, through procurement strategies, the process involved in supplying goods to customers is significantly affected. This denotes that, suppliers need to exhibit a technique in distributing goods. From the study, it was revealed that the amount of effect a procurement strategy would have on supply chain performance is highly implemented meaning that a supplier would be able to sustain its procurement activities when a strategy is used hence distribution growth. The level change in the supply chain can be explained by the following variance; procurement preferences and reservations, green procurement practices, supplier initiatives as well as electronic procurement. These practices in collaboration are significantly a determinant of supply chain performance therefore the need to be implemented. (Kiswili & Ismail) [50].

Aila & Ototo [51] assessed sustainable procurement concept; and adding up to service delivery. The study indicated that sustainable procurement is one of the factors that ensure organizational growth. It is deployed from the study that procurement sustainability is very essential in an organization. Sustainability as a term on its own depicts the act of taking decisions to ensure that the social, economic and standard of living of the community is improved so as to ensure long-term organizational success. This, therefore, means that sustainable procurement concept must be taken into consideration by organizations to ensure high service delivery. Sustainable procurement helps the organization to make an assessment before any procuring activity is undertaken. This help the organization to prepare a schedule for all requirement needed to be purchase. In addition, well utilization of resources enables the organization to be free from excess expenses thereby improves its procurement process, as a result, enhances its performance.

Islam, et al. [52] assessed the impacts of sustainable procurement (SP) practices on organisational performance. The study found that there is a positive relationship between sustainable procurement and service delivery. It was discovered that when organization practices procurement maintenance it enables them to make good decisions as to its procuring process. It is able to make informed decisions on ensuring that all needed tools and devices are considered first before any other consumption is made. With

this, it is able to enhance its activities thereby leads to high performance. Again, it was revealed that organizational economic resources are important. The ability for organization to meet its targeted goals may depend on its financial liabilities as well as decision makings. Organizations' procuring activities is very vital since it is a major determinant of service delivery.

Oyuke and Shale [53] examined the role of sustainable strategic procurement practices and its effect on service delivery. Procurement activity is a very important factor when running a business. The study revealed to us that, organizations' relation with its suppliers is very much important since they serve as the marketers for the company or business. Due to this, most organizations make sure that the procurement process is standardized. Managers also make adjustments into ensuring that they are well related to suppliers. New methodologies are employed by managers of businesses so as to ensure a good and flexible procurement process. Since service delivery is mostly affected by suppliers, there is always interrelation with distributors in the procuring process so that service delivery is improved. Initiating procurement strategies by managers of organizations help improve the performance of the organization hence the growth of the business.

Boraya [54] assessed the relationship between collaborative public procurement and performance among state corporations in Kenya. The study indicated that external influence had affected the performance of corporate entities in Kenya. As a result, there is low service delivery by most organizations in Kenya. Due to that, corporations in the country had adopted new reforms and strategies to fight the situation to enable them to enhance performance as well as procurement activities in the organization. Moreover, more research is undertaken by these corporations to deploy more ways and identify opportunities that would help them defeat the challenges they are going through.

Igarashi, et al. [55], also noted that sustainable procurement practices enhance long term values of the supplies purchased, as they are more sustainable compared to the purchased supplies that are not environmentally compliant. Companies save money by procuring environmentally-friendly products, which enable the companies to offer cheaper products and

services to their customers and hence enhancing service delivery Uttam and Roos [56].

Likewise, sustainable procurement that is focused on the environment also enhances service delivery. Witjes and Lozano [57] argue that ensuring that companies procured from suppliers that are environmentally-conscious, enhance satisfaction of customers.

Moreover, sustainable economic procurement ensures that procured goods and services will deliver high-quality services to customers. It eliminates the procurement of defective goods and poor service thus enhancing the service delivered to customers. Sonnino and McWilliam, [58].

3.4 The Public Procurement (Amended) Act 2016, (Act 914) of the Republic of Ghana

Public procurement of Ghana is regulated by an Act of Parliament which was passed into law in December 2003, Act 663 and consequently revised and approved by the Legislative body of the Republic of Ghana and consented to by the Head of state in 11th May 2016, Act 914. The (Amended) Act 2016, (Act 914) is an act to amend the Public Procurement Act, 2003 (Act 663), to make further public procurement provision, re-enact part two of the Act, provide for decentralized procurement and for connected purposes.

The Public Procurement Act as amended is organized into sections and parts which relates to issues of different nature. It has ninety-nine sections and divided into nine parts.

Part One (I) established the Public Procurement Authority as a corporate body with a continuous progression and a common seal aim to reorganize and bring into line or synchronize public procurement processes to secure prudent, cost-effective and efficient use of public funds and guarantee fair, transparent and non-discriminatory, environmentally and socially sustainable procurement practices. The Authority has a number of functions, the most important ones being regulations and policy formulation, employee training and capacity building; development of local industries; monitoring and evaluation and warranting that public procurement is mainstreamed into public financial management system.

Part Two (II) also relates to Procurement structures and provides for administrative and established engagements for procurement. The scope and application of the Act involves procurement of goods, works and services funded either wholly or partly from public funds, functions that pertain to procurement of goods, works and services including the description of requirement and source of supply, selection and award of contracts and the phases of contract administration. It also includes the responsibilities of a procurement entity and institutes the Entity Tender Committee (ETC) and ensures compliance with Tender Review Committees whose duty is line with the provision of contemporaneous endorsements for recommendations for award of contract.

Part Three (III) deals with procurement rules, procurement plan, tenderers qualification and prequalification proceedings. It also indicates other issues like suspension of supplier or consultant, prequalification proceedings, decision on prequalification, participation in procurement proceedings, form of communication, records of procurement proceedings, cancellation of procurement records, denunciation of tenders, proposals and quotations and issues relating to the entry into force of procurement contract, notification of procurement contract award to the public, inducement and confidentiality.

Part Four (IV) deals with procurement methods such as competitive tendering, two-stage tendering, restricted tendering or single source tendering and request for price quotation and specifies the procedure and condition of use, including framework contracting.

Part Five (V) looks at procedures for tendering. This section is subdivided into three namely; invitation of tenders and application to prequalify, submission, evaluation and comparison of bids.

Part Six (VI) deals with techniques and procedures to employ the services of consultants. It spells out the notification of expression of interest invitation and preparation of shortlists, shortlisted candidates, illumination and modification of request for proposals, selection procedure, and receipt and evaluation of proposals.

Part Seven (VII) contains the complaints and administrative review. It also spells out the review and complaint procedure, definite rules applicable to review proceedings and issues on deferment of procurement proceedings.

Part Eight (VIII) deals with the disposal of stores, vehicles, plant and equipment. It indicates the authority to dispose, instruction and disposal of unserviceable stores procedures and guidelines.

Part Nine (IX) of Section IX deals with conduct, modifications, information request and inquiry by the Board, procedure on investigation completion, legislative reviews, and procurement related offenses, corrupt practices, threshold levels review, international obligation, use of procurement agent, regulations and interpretation.

3.5 Research Gap

When it comes to the study of service delivery in the electricity sector, limited research exists that addresses procurement issues as factors affecting or influencing the provision of electricity. For example; the Electricity Governance Initiative (EGI), led by the World Resources Institute and Prayas Energy Group, addresses the transparency and accountability of decision-making processes in the power sector Dixit, et al. [59]. Application of the toolkit in India and South Africa has focused on power sector reform (EGI South Africa, [60] Mahalingham, et al.) [61]. Other studies have examined “consumer’s experience” of electricity services from a political economy perspective, in a specific location or concerning a specific aspect of electricity services, such as subsidies or theft (Golden & Min, [62] Jain, [63]. The literature on such experiences is dominated by South Asian cases, including that of Oda and Tsujita [64] but not to Africa.

Nonetheless, there is limited research in the area of procurement policies and in particular with respect to its implications on service delivery. Chalton [65] conducted a research on the challenges of implementing procurement policies in state corporations in Kenya, Nyaboke, et al. [66] conducted research on the effects of public procurement policies on organizational performance which was focus on the water sector. Additionally, Ndung’u J. M. [67] conducted research on the effect of procurement policy on customer service delivery in the telecommunication sector while, Obiero [68] did a study on the challenges in the implementation of the Public Procurement & Disposal Act 2005 [69] in the Ministry of Higher Education, Science and Technology in Kenya. This study therefore sought to establish the effects of public procurement policies as one of the factors on organizational performance in their effort to

deliver service with specific interest in VRA, Ghana as electricity service provider that is crucial to other service provision in spite of its development of encouraging policy framework internationally (Department for Environment, Food and Rural Affairs (DEFRA), [70] European Commission [71] Relatively little research has addressed Sustainable procurement (SP) in a public sector context Preuss, [72].

4. MATERIALS 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.

4.1 Research Design

Research designs are the research strategy and framework designed to provide answers to questions from study. Klenke [73] describes research design as that structure which 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 [74] data collection method can either be quantitative, qualitative or mixed-method.

4.2 Population of the Study

According to Orodho [75] 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, [76].

For this research, the target populations are 241 employees drawn from Managements, Procurement, Technical departments and Finance and Audit department of VRA, Ghana.

4.3 Techniques and Size

Sampling is a key component and involves a number of considerations in any investigation. Huber [77] reports that a sample constitutes a percentage of the research population carefully selected to participate in a study as a population representative. It refers to a set of observations derived by a defined method from a population. A laminated sampling approach was employed in this analysis. In this experiment, the strata in the target population is heterogeneous and the results of the study are crucial if the purpose of the study to be achieved are to be followed with stratified simple random sampling techniques. The study used Yamane's formulae, $n = \frac{N}{1 + Ne^2}$, to determine the sample size (Yamane 1967:25) [78].

Where:

n = Sample size

N = Target Population (241)

e = error of 5% point

Therefore sample size (n) is calculated below:

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

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

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

$$n = 150 \text{ respondents}$$

4.4 Data Collection Method

4.4.1 Primary data

According to Kothari [79] 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.

4.4.2 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, [80] the questionnaire has a wider coverage area. Kotari [81] 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 collection. The reason for using this instrument was to collect different views from different staffs in relation to procurement practices and its effect on service delivery. The questionnaire is more confidential and have an 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. [82] 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.

4.4.3 Secondary data

These are data that have been collected already by someone else Hox & Boeije, [83] 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.

4.4.4 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 nature of the issues and processes under discussion necessitated the use of qualitative and quantitative analysis for the data collected. The data collected was transmuted into a form suitable for manipulation and analysis. The data field surveys were scrutinized to determine appropriateness, resoluteness, sufficiency and exactitude of the data. 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 representative of the outcomes. The following types of analyses were considered in the study: Correlations, regression, relative important index

and mode. The edited responses were presented and analyzed.

5. DATA, ANALYSES AND DISCUSSION

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 relative important index, mode, means and standard deviation.

5.1 Respondents Position at the Company

Fig. 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.

5.2 Job Designation/Department

Fig. 3 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.

5.3 Electricity Connectivity throughout Ghana to the General Public

Fig. 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.

5.4 Procurement Policy

Procurement policy has been described herein using means and standard deviations. The study used 5-point likert scale where a mode of 5 suggests that respondents strongly agree to the

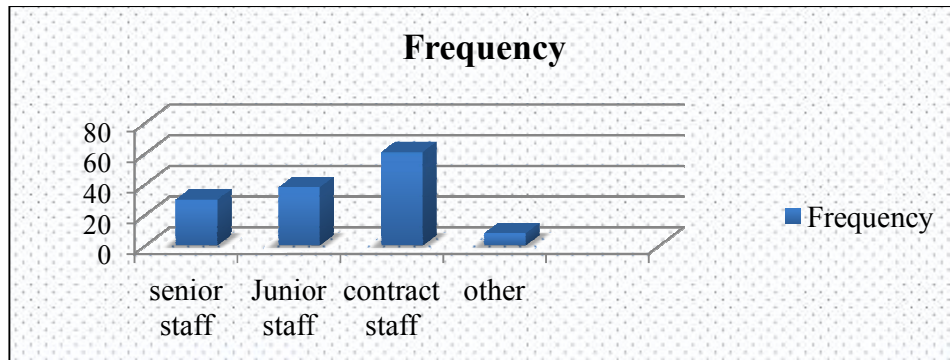


Fig. 2. Respondents position at the company
Source: Field Survey, 2019

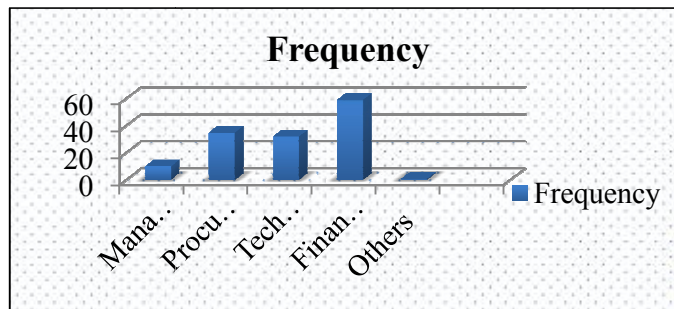


Fig. 3. Job designation/department
Source: Field Survey, 2019

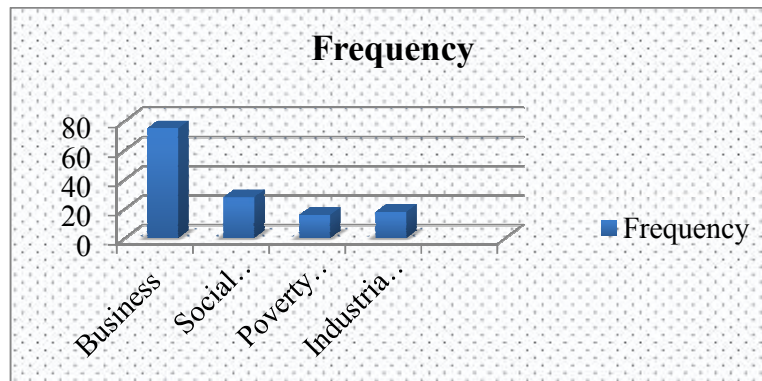


Fig. 4. Electricity connectivity throughout Ghana to the general public

Source: Field Survey, 2019

item, mode of 4 suggests that respondents agree to the item, a mode of 3- suggests that respondents are undecided, a mode of 2- suggests that respondents disagree to the item and a mode of 1- suggests that respondents strongly disagree to the item.

Table 1 presents the descriptive statistics on procurement policy. The survey shows that with procurement policy, majority of the respondents (Mode=2) disagreed that VRA has its own procurement policy that governs all procurement and contract activities. Majority of the respondents (Mode=4) agreed that all procurement activities within VRA are governed by the public procurement Act 663 as amended. Also, 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, majority of the respondents (Mode=4) agreed that contracting practices are the main reasons leading to 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 high cost to the customer especially the areas with poor infrastructures. Moving on, above 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 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.

5.5 Procurement Planning

Procurement Planning has been described herein using mode and standard deviations.

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 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.

5.6 Sustainable Procurement

Sustainable Procurement has been described herein using mode and standard deviations.

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

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.	10.2%	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						
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 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 procurement department to maintain good suppliers and that is a factor leading to higher charges for those that want to take a risk.	17.5%	61.3%	19.7%	-	1.5%	4
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. 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 ensuring 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 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 the 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

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, 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.

5.7 Service Delivery

Service delivery has been described herein using mode and standard deviations.

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 procurement system operates on 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.

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

The study had employed 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.

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 the 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 4. Descriptive statistics on service delivery

Statements	SA	A	N	D	SD	Mode
Efficiency and effectiveness						
VRA ensures procurement system operates on 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 5. Correlation

		Procurement policy	Procurement planning	Sustainable procurement	Service delivery
Procurement Policy	Pearson Correlation Sig. (2-tailed)				
Procurement Planning	Pearson Correlation Sig. (2-tailed)	0.588			
Sustainable Procurement	Pearson Correlation Sig. (2-tailed)	0.709	0.134		
Service Delivery	Pearson Correlation Sig. (2-tailed)	0.725	0.553	0.195	
		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)

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.

6. DISCUSSION OF FINDINGS

6.1 Procurement Policy and Service Delivery

The study found that Procurement Policy ($\beta = 0.623$ $\rho = 0.000 < 0.05$) is significant determinants of service delivery thus a unit change in procurement policy will result in 62.3% change in service delivery. These results are consistent with previous studies. For instance 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 [20] affirms

that procurement policy contributions in facilitating service delivery in an efficient manner are generally undisputed.

Various aspects of procurement policy have a distinct influence on procurement process Tkachenko, Yakovlev and Kuznetsova, [21] for instance, procurement policy that stimulates transparency and integrity in the procurement cycle positively influenced the procurement process. Rehmatulla, et al. [22] also noted that 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, [23].

Thai [24] 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 [25], and Bolton [26] describes public procurement as a device use 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 attempts to acquire through a particular procurement policies. Snider, et al. [27] deployed a 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. Sollish & Semanik [28] alternatively use "policies" when referring to principles such as transparency, probity, competition and real value for money.

Public procurement system as elucidated by Thai [29] that it needs to be governed by a 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. [30] Pillary [31] 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 [39] 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 [32] have an important demeanor on public sector reform and that one of the key stumbling block to the effectiveness of 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 minister leading to non-compliance of the public procurement law Akech, [33]. 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. [18].

Conversely, an assertion by Thai [29] is that aside public policy governing the public purchasing department, the atmosphere provides sense of designed worked that guides all the business activities. In the progressing countries and specifically transitional countries where 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., [35] 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 law governing all phases of service delivery from the standpoint of the provider and consumer.

6.2 Procurement Planning and Service Delivery

Procurement Planning ($\beta = 0.027$, $p=0.080 < 0.05$) is significant determinants of service delivery thus a unit change in procurement planning will result in 2.7% change in service delivery. These results are supported by researchers such as Basheka [36] who asserted that procurement planning is a key function of procurement with the potential to contribute to government operations and improved service delivery successfully. Mullins [4] also stated in his study that procurement planning contributes to the enhancement of service delivery in efficient and effective manner in public organizational sectors.

Mawhood [84] further indicates that an important channel towards safeguarding the right service delivery is to ensure effective procurement planning.

Mansi and Pandey [85] also asserted that procurement planning positively affects service delivery if it is done properly. Appropriately, planning ensures that procurement is in line the organizational needs and encourages the capability to meet customer expectations, which is an important aspect of service delivery Ruparathna and Hewage [86].

Within the framework of the public procurement, part III section 21 of public procurement act,

2003 (Act 663) 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.

6.3 Sustainable Procurement Practices and Service Delivery

Sustainable Procurement ($\beta = 0.39$ $\rho=0.000 < 0.05$) is a significant determinant of service delivery. Thus a unit change in sustainable procurement policy will result in 39% change in service delivery. A sustainable procurement practice (SPP) is a factor influencing service delivery in the public sector Organisations and undeniably the energy sector. Husseni & Shale [46] assessed the impact of sustainable procurement on service delivery. And found that organizational procurement activities can be sustained through the distribution of good and quality products by organizations. Sarhaye & Marendi [87] assessed green sustainable procurement and its influence on service delivery. From the study conducted, it was revealed that green sustainable procurement has a positive relation with service delivery. Nyoike & Ismail [48] examined the effect of sustainable procurement practices on service delivery. The study revealed that, making an assessment on procurements by managers of organizations would ensure effective procurement practices. Murutu [49] investigated the influence of sustainable procurement strategies on supply chain performance. The assessment revealed that, there is a positive relation between sustainable procurement techniques and distribution chain performance. This deployed that, through procurement strategies the process involve in supplying goods to customers is significantly affected. The level change in supply chain can be explained by the following variance; procurement preferences and reservations, green procurement practices, supplier initiatives as well as electronic procurement. These practices in collaboration are significantly a determinant of supply chain performance

therefore the need to be implemented Kiswili & Ismail, [50].

Aila & Ototo [51] assessed sustainable procurement concept; and adding up to service delivery. The study indicated that, sustainable procurement is one of the factors that ensure organizational growth. It is deployed from the study that procurement sustainability is very essential in an organization. Sustainability as term on its own depicts the act of taking decisions to ensure that the social, economic and standard of living of the community is improved so as to ensure long-term organizational success. This therefore means that sustainable procurement concept must be taken into consideration by organizations to ensure high service delivery. Sustainable procurement helps the organization to make assessment before any procuring activity is under taken. This help the organization to prepare schedule for all requirement needed to be purchase. In addition, well utilization of resources enables the organization to be free from excess expenses thereby improves its procurement process as a result enhances its performance.

Islam, et al. [52] assessed the impacts of sustainable procurement (SP) practices on organisational performance. The study found that, there is a positive relationship between sustainable procurement and service delivery. It was discovered that when organization practices procurement maintenance it enable them make good decisions as to its procuring process. It is able to make inform decisions on ensuring that all needed tools and devices are considered first before any other consumption is made. With this, it is able to enhance its activities thereby leads to high performance. Again, it was revealed that, organizational economic resources are important. The ability for organization to meet its targeted goals may depend on its financial liabilities as well as decision makings. Organizations' procuring activities is very vital since it is a major determinant of service delivery.

Oyuke and Shale [53] examined the role of sustainable strategic procurement practices and its effect on service delivery. Procurement activity is very important factor when running a business. The study revealed to us that, organizations' relation with its suppliers is very much important since they serve as the marketers for the company or business. Due to this, most organizations make sure that procurement process is standardized. Managers

also make adjustment into ensuring that they are well related with suppliers. New methodologies are employed by managers of businesses so as to ensure good and flexible procurement process. Since service delivery is mostly affected by suppliers, there is always interrelation with distributors in the procuring process so that service delivery is improved. Initiating procurement strategies by managers of organizations help improve the performance of the organization hence the growth of the business. Boraya [54] assessed the relationship between collaborative public procurement and performance among state corporations in Kenya. The study indicated that, external influence had affected the performance of corporate entities in Kenya. As a result there is low service delivery by most organizations in Kenya. Due to that, corporations in the country had adopted new reforms and strategies to fight the situation to enable them to enhance performance as well as procurement activities in the organization. Moreover, more research is undertaken by these corporations to deploy more ways and identify opportunities that would help them defeat the challenges they are going through.

Igarashi, et al. [55], also noted that sustainable procurement practices enhance long term values of the supplies purchased, as they are more sustainable compared to the purchased supplies that are not environmentally compliant. Companies save money by procuring environmentally-friendly products, which enable the companies to offer cheaper products and services to their customers and hence enhancing service delivery Uttam and Roos, [56].

Likewise, sustainable procurement that is focused on the environment also enhances service delivery. Witjes and Lozano [57] argue that ensuring that companies procured from suppliers that are environmentally-conscious, enhance satisfaction of customers.

Moreover, sustainable economic procurement ensures that that procured goods and services will deliver high quality services to customers. It eliminates procurement of defective goods and poor service thus enhancing the service delivered to customers. Sonnino and McWilliam, [58].

7. CONCLUSION

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 ($\beta = 0.623$ $p=0.000 < 0.05$) are significant determinants of service delivery thus a unit change in procurement policy will result in 62.3% change in service delivery. Procurement Planning ($\beta=0.027$, $p=0.080 < 0.05$) are significant determinants of service delivery thus a unit change in procurement planning will result in 2.7% change in service delivery. Sustainable Procurement ($\beta=0.39$ $p=0.000 < 0.05$) are a significant determinant of service delivery. Thus a unit change in sustainable procurement will result in 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 ($r=0.72$, $p\text{-value} < 0.05$) positive correlation between procurement policy and services delivery. Moreover, the result showed that a strong significant ($r=0.55$, $p\text{-value} < 0.05$) positive correlation between procurement planning and service delivery. Again the study found a strong significant ($r=0.19$, $p\text{-value} < 0.05$) positive correlation between sustainable procurement and services delivery. The results revealed the 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.

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 their own procurement policies that will be binding on all purchasing activities. This will help to facilitate transactions and promote the 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 examination of the procurement cycle, VRA will be able to reduce corruption and also detect theft to ensure quality improvement and supply reliability.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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