

Upholding Sustainable Public Procurement Practices in Ghana: A Health Service Perspective

Evans Kyeremeh

School of Business, Department of Marketing, Procurement and Supply chain Management,
University of Education, Winneba,

Abstract: Sustainability in public procurement has become a major topical issue of concern to many countries of which Ghana is no exception. Public procurement has been mandated to include social, economic and environmental factors in every acquisition of goods, works and services. Therefore, it is important to study how sustainable public procurement will be effectively discharged. This study is being carried out in the Ghana Health Service in the Ashanti and Central Regions. The study investigates the level of sustainability awareness and difficulties in public procurement procedures in Ghana's health sector, as well as how these obstacles impact its implementation. This study adopted a descriptive research design with public procurement practitioners as a unit of analysis. The purposive sampling technique was used in the sample selection to ensure that only staff that were involved in public procurement activities were included and the sample size was 113. Questionnaire was used to gather the data and SPSS software was used for the analysis. The findings revealed that most of the procurement professional are aware of the sensitivity nature of sustainable procurement. Majority of the procurement practitioners are much aware of the inclusion of social, economic and environmental factors in public procurement of goods, works and services. Rules and guidelines are strictly adhered to as a means to enhance its effective implementation. Some challenges identified could have negative effect on the sustainability procurement in the public health sector hence steps are needed to address them. The study recommends that further research be conducted to cover other parts of the country to ascertain how sustainable procurement implementation affect acquisition of goods, works and services.

Keywords: *Keywords: Sustainability, Procurement, Health, Practice, Environmental, Social, Economic*

I. Introduction

In recent years, there has been a need for governments to investigate the long-term economic, social, and environmental advantages of their procurement practices in order to achieve continual improvement (Brammer & Walker, 2011). As the demand for sustainability increases, a number of organizations and institutions are developing policies and practices that go beyond their own borders (Meehan & Bryde, 2011). Sustainability, as well as other considerations like as cost, lead time, flexibility, and risk exposure, have lately received more attention in the procurement function (Ghadimi et al., 2016). Proper public procurement regulations may assist governments in increasing resources, achieving greater value for money, and improving project delivery. Improving the accommodating atmosphere in the governance method for carrying out public procurement policies will help succeeding regimes enhance their economic activities. According to Boomsma (2008), the concept of sustainable public procurement practices may be used as a tool in governance systems to reduce socioeconomic inequality and exclusion.

Over the last decade, sustainable procurement has been a major topical issue in several nations. Local, national, and international governments have had to promote procurement policies to encourage the diffusion of environmentally sound goods and services. This is also to promote recycling and reduce the depletion of ozone layer. According to Son et al., (2011) sustainable construction should be taken into consideration, and sustainable consumption, according to the World Summit on Sustainable Development (Wahlen et al., 2012). Sustainability is one of the most important worldwide challenges of the twenty-first century, and it refers to ensuring holistic development that includes not only the current generation's social, economic, and environmental well-being, but also the well-being of future generations (Blok et al., 2015; Thiele, 2016). It is instructive to note that Sustainable Public Procurement (SPP) may be utilized to generate synergies between the three pillars of Sustainable Development, as defined by the good governance principle: economic feasibility, environmental balance, and social development. SPP is now generally recognized as a "strategic tool to drive innovation and improve the sustainability performance of both public and private institutions throughout the world" (UNEP Review, 2017). Sustainable procurement is a process whereby organizations meet their needs for goods, services, works, and utilities in a way that achieves value for money over the long term by generating benefits not only to the organization, but also to society and the economy while minimizing environmental damage (AfDB, 2020). It becomes Sustainable Public Procurement (SPP) when the organization or the procuring entity is a public organization or any of its agencies or instrumentalities.

According to Kennard (2006) sustainable public procurement goes beyond standard procurement operations; it addresses environmental and social concerns in addition to economic reasons. Benefits of implementing sustainable procurement include cost control, enhanced organizational processes to adhere to recognized worldwide models, compliance with environmental and social legislation, effective risk management, and a future sustainable supply chain. Sustainable procurement techniques assist firms in improving efficiency, reducing waste, overcoming supply chain bottlenecks, and increasing productivity (Humphrey, 2003).

Effective public procurement policy management is one that has high transparency level, accountability, fairness, responsibility and economically valuable in order to maximize efficiency and value for money. Therefore, organizations in the local context of procurement advancing must develop the goals and objective to promote good governance. Public procurement advancement contributes to fair competition, transparency, good performance of the market and effective utilization of available resources. According to Lund-Thomsen (2011), there is an increase of interests, distortion and internal acts that affect procurement sustainability practices as a result of mismanagement and unethical conducts. In Ghanaian health service perspective, despite achieving procurement implied objectives, the current procurement system had a number of weaknesses. Some of these weaknesses are inadequate concentration in the existing framework and policies, green sustainability, poor decision making and choice selections of service providers and products. As a result of bad and inefficient procurement and exorbitant costs, they were stripped of objectivity, responsibility, and candor.

However, the health sector stands to benefit when it introduces measures and policies that relate to sustainable procurement practices. The challenge is the issue of sustainability in public procurement which is complicated and attitudinal change amongst the procurement professionals would help alleviate these challenges.

According to Stonebraker et al. (2009), insufficient knowledge and skill in green procurement strategy in procuring green items is important to operational levels. This might lead to poor value for money, low quality and late project completion, as well as noncompliance with environmental and social concerns in procurement procedures. The job of procurement specialist was inconsistent among diverse purchasing originations that used the same current sustainable procurement system (Walker et al. 2009). Taken procurement decisions is not an easy task, but the question is who take the procurement decisions and how to properly execute the procurement activities were problems which upsurge due to poor management practices from the buyer's and seller's perspective to enhance efficiency. The study aims to look at the amount of knowledge and issues of sustainability in public procurement processes in Ghana's health sector, as well as how these challenges effect implementation.

II. Literature Review

2.1 Overview of Sustainable Public Procurement (SPP)

Sustainable procurement is a "process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to the society and the economy whilst minimizing damage to the environment" (AfDB, 2020). The complete process of acquiring commodities, works, and services on behalf of a government agency is referred to as procurement (Asefa, 2019). Just like any other commercial procurement activity, it comes down to matching supply and demand. The ways through which government agencies, departments, and other public organizations and institutions purchase items, services, works, and activities from third parties through the use of a contract are referred to as public procurement (Neupane et al., 2014). However, because they administer public monies and must answer to taxpayers, public contracting agencies must exercise extreme caution when awarding contracts. The regulations and practices that govern public procurement differ by country, as well as across national governments, state-owned enterprises, and local governments. Within public procurement, there are typically two basic principles that must be followed. These principles include best value for money, which ensures cost-efficiency via competition, and fairness, which ensures a level playing field for market players by implementing rules that protect nondiscrimination, equal treatment, transparency, and proportionality (Asefa, 2019).

Sustainable development defined as "development that meets present demands without harming future generations' ability to meet their own needs" (United Nations, 1987). The most commonly cited definition of sustainable procurement comes from the United Kingdom Sustainable Procurement Task Force and builds on this concept logically. The Task Force defines sustainable procurement as "a process by which organizations meet their needs for goods, services, works, and utilities in a way that achieves value for money over the long term by generating benefits not only to the organization, but also to society and the economy while minimizing environmental damage" (DEFRA, 2006). In other words, sustainable public procurement is the meeting point of the ideas of sustainable development and public procurement. In 2002, the World Summit on Sustainable Development (2002) acknowledged that public procurement can contribute to achieving sustainable development goals and the Johannesburg Plan of Implementation effectively institutes sustainable public procurement as a crosscutting issue (WSSD, 2002). The plan encourages public procurement practices that stimulate development and diffusion of environmentally sound goods and services and promotes the integration of the three pillars of sustainable development which are economic development,

social development and environmental protection. These pillars are interdependent and mutually reinforcing components. Consequently, a concept described as linkage by McCrudden (2004) has become increasingly important for the public sector. A linkage is the act of participating in the market as a purchaser and at the same time regulating it through the use of its purchasing power to achieve environmental goals or social justice (McCrudden, 2004).

2.2 Sustainable Public Procurement

Sustainable procurement is a subset of manageability, which refers to making actions that strike an appropriate balance between the environment, society, and the economy in order to achieve long-term company success (Shultz, 2013). Because there is no universally accepted definition of sustainable procurement, various studies, organizations, and countries may have differing opinions and definitions (Walker et al., 2012). In its most basic form, sustainable procurement refers to the ability to buy large quantities of items and equipment without jeopardizing future assets. According to the Task Force on Sustainable Procurement (Pacheco-Blanco & Bastante-Ceca, 2016), sustainable procurement is "an interaction in which organizations address their issues for merchandise, administrations, works, and utilities in a way that achieves an incentive for money over the long haul in terms of producing benefits not just to the association, but also to the environment".

2.2.1 Environmental Sustainability

Environmental sustainability is more than just eliminating pollutants in the air and water. It is concerned with environmentally sustainable methods that either benefit or have a negative influence on the natural environment (Jiang et al., 2018). Reducing pollution, waste, and emissions; repairing environmental damage and degradation; using renewable or recyclable materials and designs; reducing the use of nonrenewable resources and energy; managing supply chains to support environmental practices; and investing in "green" projects such as renewable energy are examples of this (Jiang et al., 2018). From the beginning of the manufacturing and production process through the conclusion of its usage and disposal. The product or service must be ecologically friendly from the point of manufacture to the point of disposal; every product manufactured or service provided has an environmental impact on society that must be addressed. Environmental concerns are the primary macro-level reason for sustainable procurement, as a result of a growing 21st-century consensus that humanity is placing excessive demands on existing resources through unsustainable but well-established consumption habits. Because this is such a significant issue, environment-centric procurement (green procurement) is typically distinguished from sustainable procurement. There are a few ways to identify green procurement. Green products must demonstrate some level of effectiveness by lowering the environmental impact of procurement. Some recycling practices, such as using less hazardous materials and purchasing items with minimal packaging, may be included. Green buying, according to the Chartered Institute of Purchasing and Supply, is a method of assessing the environmental, social, and economic effects of a manufacturing process, consumption, and disposal (Chari & Chiriseri, 2014). According to the Japanese Ministry of the Environment, is also a way to ensure that all procurement-related procedures, such as product and service acquisitions, have a minimal environmental impact. This notion is significant because firms guarantee that green buying is integrated into their value chain management. The most obvious argument for green procurement is as a tool for combating climate change, but it also has the potential to reduce over-exploitation of all limited resources.

2.2.2 Social Sustainability

It involves fair and beneficial business practices towards labour and society which the business operates. This may include: ethical treatment of employees; support for small and or local suppliers; support for diversity and equal opportunity in employment and supply chains; the development of skills; promoting public health; and giving back to communities. Sustainable procurement is also used to address issues of social policy, such as inclusiveness, equality, international labour standards and diversity targets, regeneration and integration. Examples include addressing the needs – whether employment, care, welfare or other – of groups including ethnic minority, children, the elderly, those with disabilities, adults lacking basic skills, and immigrant populations. Every activity that includes purchasing has social repercussions, and the notion of SPP might be utilized to generate social changes. Working conditions for public contractors, the least fortunate in society, accessibility for the disabled, employment for the disadvantaged, child labor, and promoting trade fairness are just a few examples. Human health and safety, support to small and local businesses in their growth, employment and training for the less privileged in society, and support and implementation of regulatory requirements are all social activities that should be addressed throughout the procurement process (Bofinger et al., 2021). Sustainable procurement ensures that social obligations are met. It will also improve the image of companies that practice sustainable business practices and raise their reputations in terms of sustainable purchasing. Sustainable purchasing encourages sustainable consumption and expands the market for environmentally friendly products. Sustainability aids in the growth of the local economy. It ensures that organizational practices are more closely aligned with the organization's aims. It helps to recruit and retain employees while also providing a chance to lead by example.

2.2.3 Economic Sustainability

Economic sustainability has traditionally been stressed by operations managers and their companies, at least in "for-profit" firms. It is concerned with profitability, long-term economic success, and its societal benefits (such as employment, access to products and services, tax payment, communication, investment, and so on) (Maraghi, 2019). On a macroeconomic level, incorporating whole-life costing into decision-making may provide economic benefits in the form of efficiency improvements. Furthermore, the establishment of sustainable markets is critical for long-term prosperity, and sustainable development standards encourage innovation. There are also global implications: sustainable procurement may favor fair trade or ethical practices, allowing for additional development investment. Sustainable procurement allows for economic redistribution on a microeconomic level. Goals might include creating jobs and wealth in redevelopment regions, as well as assisting small and/or ethnic minority-owned enterprises. Some proponents of sustainability suggest that there should be less focus on profit. However, it is critical to understand that profit (or financing for non-profit organizations) is equally crucial for long-term company viability, and preserving revenues can be challenging in fast changing conditions. Finally, if a company is to survive and preserve its competitive edge in the marketplace, its business model must evolve (Brammer, 2011). We may claim that a corporation has built a sustainable competitive advantage if it is able to successfully adapt its business model over time. Creating and retaining such a competitive edge is not straightforward (Maraghi, 2019).

2.3 Sustainability Stimulation

The use of the public procurement function to stimulate the acquisition of sustainable products is becoming increasingly widespread. Many studies have been written in order to support the use of public

procurement in order to drive sustainable production and consumption (European Commission, 2004). The capacity of the health system to keep the many components that drive supply chain performance is referred to as health supply chain sustainability. The structural, capability-based, and structure-capability fit criteria are all used here. Because of the numerous factors that may contribute, sustainability is a complex framework with significant overlap with other strategic framework directions.

2.3.1 Structural Sustainability

The ability of a health system to sustain non-human resources required for performance. Despite the fact that financial resources are only one of the structural components that contribute to sustainability, they have received the majority of the attention when considering sustainability. Other non-human resources are also required for performance; ideally, structural sustainability should account for these resources as well. As a result, structural sustainability is concerned with the efficient use of existing resources, the maintenance of these resources to ensure that their effective life is as long and as cheap as possible, and options for replenishing these resources—revenue generation, equipment.

2.3.2 Skillset Sustainability

The ability of a health system to retain the human talent required for performance. Efforts to recruit and retain appropriately skilled employees, either through training or directly from the labor market, are critical to the sustainability of the skillset. Turnover is most likely the most significant impediment to the long-term viability of public-sector skill sets.

2.3.3 Motivation Sustainability

A health system's ability to keep employees motivated to perform well. Motivational sustainability focuses on the efforts and processes required to keep the health system workforce generally motivated for supply chain performance and, more specifically, motivated along the individual performance directions appropriate for the health supply system. These mechanisms, such as performance cultures and financial systems that reward achievement, reflect both implicit and explicit motivations. Typically, given money, clear motivational drives are easier to maintain than implicit motivational factors such as performance culture.

2.3.4 Structural-Capability Fit Sustainability

The ability of a health system to maintain the necessary fit between structure and capability required for performance. This sustainability focuses on the interdependence of the elements driving supply performance in order to ensure that the dynamics between the components help drive performance in a positive, rather than a negative, direction. The executive level and management level of the health system are frequently the source of this sustainability. Those in charge of the system's design and resource allocation must keep an eye on this fit and, if necessary, take action to realign it.

2.4 Government Role in Sustainable Public Procurement Project

Ghana's government is responsible for providing public goods and services. To achieve this task, the government must acquire road improvements, construct lorry stations and airports, create utility networks, and construct hospitals, schools, and housing, among other things. They also hire caterers and landscapers, as well as purchase documents, computers, and furniture for governmental offices. Procurement of products, works, and services accounts for more than half of the government budget. The government can make a difference and contribute to sustainable development by purchasing goods and services that have been planned, produced, and delivered after economic, environmental, and social risks have been assessed (PPA, 2020). The application of the SPP idea in public procurement should be a

long-term process rather than a quick fix. The method should include, among other things, establishing a national taskforce for SPP implementation; developing an implementation plan; public education and training to raise awareness; entity training; and mainstreaming economic, social, and environmental factors into procurement procedures.

2.5 Challenges of Sustainable Procurement

Several issues might sabotage an organization's efforts to implement sustainable practices, which are discussed below. The paper recognizes that the formulation, implementation, and execution of sustainable procurement procedures face a number of challenges that differ between nations, businesses, and locations. Perceived costs or monetary imperatives, for example, constitute the principal boundary in the United Kingdom, Eastern and Western Europe, the United States, and Canada (Brammer & Walker, 2011; Blair & Wrigh, 2012). Mindfulness is seen as the biggest hurdle in Malaysia (Islam et al., 2017), but the United Nations sees a lack of sustainable procurement structures and processes as the most serious hindrance (Hasselbalch et al., 2015). In Norway, the biggest impediment is lack of knowledge on maintainability, as well as a mismatch between immediate and long-term critical objectives (Giunipero et al., 2019). Other major roadblocks to long-term procurement include lack of effective authority, executive support, and preparation, including procurement specialists' knowledge and aptitude. Other barriers include a lack of sustainable resource or service providers, a lack of social mix, a lack of transparency, decentralized or degenerated purchasing structures, time constraints, competing needs, a lack of understanding of the nature of sustainable items, a lack of political support, and unofficial laws such as contract measures for business firms, and a lack of agreement (Boomsma, 2009; Ageron et al., 2012; Islam et al., 2017). According to the text, the majority of the challenges to sustainable procurement will be internal to the organization rather than external. Moral norms have a diverse impact in different countries (Cooper et al., 2002). Asian organizations are seen as supporters of raw resources, sub-collected commodities, and supplies on a global scale (Sturgeon & Lester, 2004). To meet the growing expectations of their clientele, Western corporations with headquarters in Europe and America that use reappropriated manufacturing in Asia should place a greater emphasis on sustainable mindfulness (Post et al., 2020). The constantly growing dedication of academic study from Taiwan, China, and India on the issue of sustainable procurement illustrates the newly discovered interest and problems encountered by Eastern companies.

III. Methodology

In this study, the descriptive research design was used. The study targeted public procurement practitioners in the Ghana Health Service. Therefore, a quantitative research method was used to analyze the proposition of the study. The data from the field was collected using a questionnaire. A questionnaire survey is an efficient way to collect data about occurrences and causal relationships. In this case, a regular questionnaire was employed to collect data. Before distributing the questionnaire to the respondents, it was pre-tested with procurement specialists. In order to prevent ambiguity, the input from the pre-test studies resulted in adjustments to some of the items supplied. This study was designed to solicit information from public procurement practitioners from Ashanti and Central Regions of Ghana on sustainable procurement. The purposive sampling technique was employed in the sample selection to guarantee that only staff that were directly involved in public procurement activities were included. As a result, 113 participants were sampled and considered in the study. The sampling size were selected from procurement practitioners from

various health service in some selected health facilities in both the Ashanti and Central Regions of Ghana. The identified respondents were asked questions related to procurement sustainability. Finally, when data collection was completed, the questionnaires were coded, and the data was processed using the Statistical Package for Social Sciences (SPSS) software, which is provided in the following tables.

IV. Data Analysis and Discussion

Out of 113 questionnaires distributed to staff, 72 (63.7%) were found to be males, where 41 (36.3%) were females, which fairly represent the selected staff as presented in Table 1. The table further depicts that majority of the respondents were holding their first degrees 40 (35.4%), those holding Master’s degree were 8 representing 7.1%. It was also discovered that most of the employees are between the ages of 30 and 39, representing 48.7%. Majority of the staff in line of procurement activities were also found to have worked in the organization for more than 10 years as presented in table.

Table 1: Demographic Background Information

Demographic Variables	Frequency	Percentage
Gender		
Male	72	63.7
Female	41	36.3
Age		
18-29 years	22	19.5
30-39 years	55	48.7
40 years and above	36	31.9
Level of Education		
SHS	20	17.7
HND	35	31.0
Degree	40	35.4
Masters	8	7.1
Others	10	8.8
Work Duration		
Up to 2 years	15	13.3
3- 6 years	18	15.9
7 - 10 years	22	19.5
10 years above	55	51.3

Source: Field Data, 2022

The Health Sector's Awareness of Sustainable Public Procurement Practices

Table 2: Awareness of Sustainable Public Procurement Practices

	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	78	69.0	69.0	69.0
No	35	31.0	31.0	100.0
Total	113	100.0	100.0	

Source: Field Data, 2022

Based on the above responses, it can be deduced that respondents were much concerned about sustainability procurement practices at the health services. With majority of the personnel responded “Yes” representing 69.0% whiles “No” represented 31.0%. This suggests that the vast majority of health-care employees are aware of sustainable buying procedures. Observing sustainability implies procuring products to meet social, economic and environmental standards.

Appropriate use of public procurement sustainability guidelines

This section examined how procurement sustainability guidelines were handled appropriately in the health sector of Ghana. The study indicated that 82 representing 72.6% have been strictly adhering to the guidelines concerning the usage of sustainable procurement as enshrined in the Act 914 as amended. Also, 31 (27.4%) of the respondents opposed to the proper usage of sustainable procurement rules. This indicate that implementing sustainable procurement practices in the sector has not been an issue at all since they are strictly complying the rules governing its usage.

Table 3: Appropriate usage of public procurement sustainability guidelines

	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	82	72.6	72.6	72.6
No	31	27.4	27.4	100.0
Total	113	100.0	100.0	

Source: Field Data, 2022

Assessment of public procurement sustainability performance

Table 4: How would you assess the performance of the public procurement sustainability as embedded in the amended Act 914, 2016

	Frequency	Percentage	Valid percentage	Cumulative percentage
Unfair	26	23.0	23.0	23.0
Neutral	7	6.2	6.2	29.2
Fair	80	70.8	70.8	100.0
Total	113	100.0	100.0	

Source: Field Data, 2022

The Table 4 indicated that, 70.8% of the respondents believed that public procurement sustainability as embedded in the amended Act was fairly represented and 6.2% of the respondents thought otherwise. Sustainable procurement issue has been well focused on how the society will accept what has been acquired for them, its economic implementation and conformity to environmental standards.

Difficulties in Implementing Sustainable Public Procurement Practices

Table 5: Difficulties in Effective Sustainable Public Procurement Practices

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	38	33.6	33.6	33.6

No	64	56.6	56.6	90.2
Sometimes	8	9.7	9.7	100.0
Total	113	100.0	100.0	

Source: Field Data, 2022

Table 5 demonstrated that majority of the workers at health institutions were not having much difficulty with the public procurement sustainability procedures. Response of “No” indicated that 56.6% of the respondents were not experiencing major challenges in practicing sustainable public procurement. 33.6% of the respondents believed that sustainability inclusion in the public procurement system gave them some sort of difficulties in their dealings with some vendors. Based on this, it is obvious that sustainable procurement is progressively gaining traction in Ghana's public sector procurement.

V. Results

The results obtained from this study indicated that sustainable procurement practices have been a major concern in the public sector procurement of which health service is no exception. The majority of procurement professionals in the health sector are well aware of the importance of including social, economic, and environmental issues in public procurement of goods, works, and services. It is also revealed that, procurement sustainability guidelines are being handled appropriately to enhance its smooth implementation. Compliance of sustainability procurement practices has been smooth without stiffer opposition as revealed. From this study, it is quite clear that sustainable procurement practices have gained the grounds in the society as to what to procure to satisfy all the three factors pertaining to sustainable procurement. The problems of adopting sustainable procurement in Ghana's health sector have not been tremendous because compliance with its use was not a major issue for practitioners. It was clearly indicated that acceptability of sustainable procurement into the public procurement structure has gained strength. Sustainability procurement is propelling the growth in the area of procurement since green procurement practices has become a global phenomenon.

VI. Conclusion and Policy Recommendations

The study looked at sustainable procurement procedures in Ghana's public health sector. The goal is to explore the amount of knowledge and problems of sustainability in public procurement processes in Ghana's health sector, as well as how these challenges impact implementation. It was evident that sustainable procurement practices have become a major area of concern to the procurement practitioners since they are more particular on what to procure, at what time, place, condition and price. It was also demonstrated that social, economic, and environmental aspects were taken into account prior to the start of any procurement process. Strict compliance on sustainable procurement is adhering to by the procurement entities to enhance efficiency in order to attain value for money. Some challenges identified include perceived high cost of implementing sustainable procurement, lack of sustainable procurement structures and procedures, how sustainable procurement would be maintained and professional ability and knowledge in handling such issues amongst others. These could have negative effect on the sustainability procurement in the public health sector if steps are not taken to address them. Proper procedural measures and

deliberations must be done to mitigate these issues of concern.

It is recommended that sustainable procurement issues are handled with utmost care since it has become a major global concern. There should be public awareness and sensitization on sustainable procurement to ensure its acceptability and usability. Professionalism, transparency, fairness, value for money must be ensured to enhance efficiency and effectiveness in the procurement concepts. It is also recommended that further studies be conducted in the other areas of the country since the study was limited to two regions. It is expected that the study will help the practitioners to function effectively to enhance sustainable procurement implementation in the Ghana and beyond.

References

- [1]. ADB (2020). Guideline notes on Sustainable Procurement. Fiduciary Services and Inspection Department (SNFI), African Development Bank, Abidjan.
- [2]. Ageron, B., Gunasekaran, A., & Spalanzani, A. (2012). Sustainable supply management: An empirical study. *International journal of production economics*, 140(1), 168-182.
- [3]. AI Maraghi, F. (2019). Sustainable Public Procurement in the Kuwait Public Sector.
- [4]. Blair, F., & Wrigh, D. (2012). Implementing sustainable procurement. *European Pathway to Zero Waste & Resources Action Programme EPOW*.
- [5]. Blok, V., Wesselink, R., Studynka, O., & Kemp, R. (2015). Encouraging sustainability in the workplace: A survey on the pro-environmental behaviour of university employees. *Journal of cleaner production*, 106, 55-67.
- [6]. Bofinger, Y., Heyden, K. J., Rock, B., & Bannier, C. E. (2021). The sustainability trap: Active fund managers between ESG investing and fund overpricing. *Finance Research Letters*
- [7]. Boomsma, J. M. (2009). Development Policy & Practice Sustainable procurement from developing countries Practices and challenges for businesses and support agencies *Bulletin* 385.
- [8]. Boomsma, M. J. (2008). Sustainable procurement from developing countries. *Practices and challenges for business and support agencies. Bulletin*, 385.
- [9]. Brammer, S., & Walker, H. (2011). Sustainable procurement in the public sector: an international comparative study. *International Journal of Operations & Production Management*.
- [10]. Chari, F., & Chiriseri, L. (2014). Barriers to sustainable procurement in Zimbabwe.
- [11]. Cooper, B. J., Chow, L and Yun Wei, T. (2002). "The development of auditing standards and the certified public accounting profession in China", *Managerial Auditing Journal*, Vol. 17 No. 7: 383-389.
- [12]. DEFRA (2006). *Procuring the future - Sustainable Procurement National Action Plan: recommendations from the Sustainable Procurement Task Force*.
- [13]. European Commission (2004). *Promoting Environmental Technologies: sectoral analyses, barriers and measures*. A report from the Sustainable Production and Consumption Issue
- [14]. Ghadimi, P., Azadnia, A.H., Dolgui, A. & Heavey, G. (2016). A review on the buyer–supplier dyad relationships in sustainable procurement context: past, present and future. *International Journal of Production Research*, 54(5): 1443-1462.
- [15]. Giunipero, L. C., Bittner, S., Shanks, I., & Cho, M. H. (2019). Analyzing the sourcing literature:

- over two decades of research. *Journal of Purchasing and Supply Management*, 25(5)
- [16]. Hasselbalch, J., Costa, N., & Blecken, A. (2015). Investigating the barriers to sustainable procurement in the United Nations. In *Humanitarian Logistics and Sustainability* (pp. 67-86). Springer, Cham.
- [17]. Asefa, E. W. (2019). *Assessment of Sustainable Public Procurement Practices in Ethiopian Public Procurement and Property Disposal Services and Public Procurement and Property Administration Agency* (Doctoral dissertation, Addis Ababa University).
- [18]. Humphrey J. (2003). Globalization and supply chain networks: The auto industry in Brazil and India. *Global Networks*, 3(2): 121-141.
- [19]. Islam, M. M., Murad, M. W., McMurray, A. J., & Abalala, T. S. (2017). Aspects of sustainable procurement practices by public and private organizations in Saudi Arabia: an empirical study. *International Journal of Sustainable Development & World Ecology*, 24(4), 289-303.
- [20]. Jiang, Q., Liu, Z., Liu, W., Li, T., Cong, W., Zhang, H., & Shi, J. (2018). A principal component analysis based three-dimensional sustainability assessment model to evaluate corporate sustainable performance. *Journal of Cleaner Production*, 187, 625-637.
- [21]. Kennard, K. (2006). Sustainable Procurement. Shaping the Change. XXIII FIG Congress. Munich, Germany, October 8-13, 2006.
- [22]. Lund-Thomsen, P. (2011). Sustainable Procurement in the United Nations. *Journal of Corporate Citizenship* (42).
- [23]. McCrudden, C (2004). 'Using Public Procurement to Achieve Social Outcomes', Natural Resources Forum, 257–267.
- [24]. Meehan, J., & Bryde, D. (2011). Sustainable procurement practice. *Business strategy and the environment*, 20(2), 94-106.
- [25]. Neupane, A., Soar, J., Vaidya, K., & Yong, J. (2014). Willingness to adopt e-procurement to reduce corruption. *Transforming Government: People, Process and Policy*.
- [26]. Pacheco-Blanco, B., & Bastante-Ceca, M. J. (2016). Green public procurement as an initiative for sustainable consumption. An exploratory study of Spanish public universities. *Journal of Cleaner Production*, 133, 648-656.
- [27]. Post, M. J., Levenberg, S., Kaplan, D. L., Genovese, N., Fu, J., Bryant, C. J., ... & Moutsatsou, P. (2020). Scientific, sustainability and regulatory challenges of cultured meat. *Nature Food*, 1(7), 403-415.
- [28]. Shultz, M. D. (2013). Setting expectations in molecular optimizations: Strengths and limitations of commonly used composite parameters. *Bioorganic & medicinal chemistry letters*, 23(21), 5980-5991.
- [29]. Son, H., Kim, C., Chong, W. K., & Chou, J. S. (2011). Implementing sustainable development in the construction industry: constructors' perspectives in the US and Korea. *Sustainable Development*, 19(5), 337-347.
- [30]. Stonebraker, P. W., J. Goldhar, and G. Nassos. (2009). Weak Links in the Supply Chain: Measuring Fragility and Sustainability." *Journal of Manufacturing Technology Management* 20 (2): 161–177.
- [31]. Sturgeon, T., & Lester, R. K. (2004). The new global supply base: new challenges for local suppliers in East Asia. *Global production networking and technological change in East Asia*,

- 35-87.
- [32]. Thiele, L. P. (2016). *Sustainability*. John Wiley & Sons.
- [33]. UNEP, Global Review of Sustainable Public Procurement, 2017, p. ix.
- [34]. Wahlen, S., Heiskanen, E., & Aalto, K. (2012). Endorsing sustainable food consumption: Prospects from public catering. *Journal of Consumer Policy*, 35(1), 7-21.
- [35]. Walker, H., Miemczyk, J., Johnsen, T., Spencer, R., 2012. Sustainable procurement: past, present and future. *J. Purch. Supply Manag.* 18 (4), 201e206.