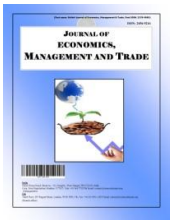

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The Influence of Green Procurement Practice on Organisational Performance. Ghana Water Company Ltd. and Bayport Savings and Loans Plc as Point of Convergence

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Author's contribution

The sole author designed, analyzed, interpreted and prepared the manuscript.

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ABSTRACT

This study was a comparative analysis of Ghana Water Co. Ltd. and Bayport Savings and Loans Plc with respect to Green Procurement practice and organizational performance by assessing the moderating role of supplier collaboration. This study employed a quantitative research approach; a structured questionnaire was used to solicit primary data from 160 staffs of both Ghana Water Co. Ltd and Bayport Savings and Loans Plc. SPSS was used to analyze the data. From the perspective of both Ghana Water Co. Ltd. and Bayport Savings and Loans, the study found that green procurement was a significant determinant of organizational performance. Moreover, from the perspective of both Ghana Water Co. Ltd. and Bayport Savings and Loans, the study again revealed that supplier collaboration has a significant effect on organizational performance. From the perspective of Ghana Water Co. Ltd., the study again revealed that supplier collaborations significantly moderate the relationship between green procurement and organizational performance. On the other hand, from the perspective of Bayport, the study found that those supplier collaborations significantly moderate the relationship between green procurement and organizational performance. The study found both Ghana Water Co. Ltd. and Bayport Savings and Loans Plc indicated that challenges in practicing green procurement spanned from lack of top

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management support, lack of cooperation from the staff, weak knowledge on green procurement to the cost of fully implementing green procurement. In conclusion, the study found no clear distinctiveness between green procurement practices in both Ghana Water Co. Ltd. and Bayport Savings and Loans Plc in terms of performance, supplier collaboration and challenges. The study recommends the need for green procurement implementation among corporate entities in order to increase performance.

Keywords: Procurement practices; organizational performance; green procurement; sustainable procurement.

1. INTRODUCTION

Although the motivation of businesses is to maximize profit, the core values and interests of emerging and existing businesses are taking a different course to pay attention to the effect the business activities are having on the environment. This is termed as the triple bottom line known as the three Ps (People, Planet and Profit). "People" as in the triple bottom line ensure that businesses adapt to measures that sustain and seek the welfare of people and their life as a whole (employee & public). "Planet" focuses on the impact of the company's operations on the environment through the use of raw material selection, process innovation, alternative product delivery methods and how the end products are disposed of. "Profit" then looks at the economic returns that a company gets from its investment [1].

Purchasing, also known as procurement is the process through which a company purchases products and services like raw materials [2]. Formally, there are three main focuses on companies when dealing with purchasing and these are; cost, quality and delivery. Green Procurement aside the three traditional variables considered also factor environmental measures into the traditional processes through an effective supply chain management decision [3]. According to Kanapathy et al. [4] Green purchasing is performing environmentally conscious procurement practices to control and minimize waste through recycling and reclamation of purchased materials without posing much danger to the environment.

Globally, green purchasing or procurement has gained a considerable amount of attention in both the business environment and academia. Green purchasing is becoming a topical issue of concern for academia, business and global bodies due to the increasing levels of global warming, climate change and to help protect the depleting nature of our natural resources. The main actors within the center of realizing the dream to reduce global warming, greenhouse gases, and others are the industry players. The forces behind going "green" have made businesses being environmentally conscious an imperative means of achieving business success. The term "sustainability" where limited resources are used to satisfy the needs of current consumers and not compromising the chances of satisfying that of future consumers has become familiar with the concept of "Green purchasing" [5]. The sustainability definition originated from the World Commission on Environment and Development in 1987 [6].

Operations and procurement managers are now focusing on life cycle assessments (LCA) for their products. The LCA simply evaluates the effect that manufactured products have on the environment, taking into account the packaging, shipping and how they are being disposed of such that it does not have any negative effect on the environment throughout its lifespan [1]. Through this consciousness of the environmental impacts of products on greenhouse gasses, green purchasing activities have helped to mitigate effects using the 3Rs of sustainability (reduce, reuse and recycle) [1].

According to Russel [7], procurement officers play an integral role in reducing the impact that their products have on the environment. In this case, they select materials that have the least deleterious impact on the environment. Based on the argument of Botta [8], placing purchasing managers that are environmentally conscious at the forefront of business operations to ensure that materials that are being used are highly recyclable, reclaimable and can be reduced. Lee [9], added that, as companies are moving towards ensuring green operations, existing procurement rules and practices are being modified to meet current standards. Lo [10] proposed that purchasing officers should endeavour to substitute materials that are environmentally unfriendly with environmentally

friendly materials (harmful materials for less harmful materials). Hsu et al. [11] holds the view that the social responsibility of companies includes the environmental aspect of initiatives and programs that are designed to address activities and to increase environmentally friendly operations in order to protect the environment. Ali et al. [12] believe that purchasing managers have the potential to influence the decision of businesses on their intention to go green and to reduce its negative effect on the planet. Also, Blome et al. [13] indicated that purchasing managers can scout for materials that will promote greenness functions when they are environmentally sensitive.

1.1 Statement of the Problem

Although the role of purchasing cannot be underestimated in ensuring the achievement of environmental issues, research in this area is not consistent. The first school of thought argues that, though research in the area of sustainability has transcended into areas of green supply chain management (GSCM), green innovation and closed-loop supply chain and sustainable supply chain have been researched with less attention on supply-side management [13]. There is scarcely any concrete research to show for in this area supply chain practice. According to Blome and colleagues, many companies have recently started to integrate green procurement or purchasing into their daily operations. The effort is spreading very fast for companies to employ the concept of sustainability [13]. Another school of thought holds the argument that the boundaries and key drivers of sustainability are not well-defined to be able to identify its barriers to achieving environmentally friendly and sustainable business operations [14]. Though there are a countless number of empirical evidences that explore the relationship between green purchasing practices and firm performance, arguments are not yet clear on factors that constitute performance in relation to green procurement.

Studies in this area have only focused on firm performance as a variable to measuring corporate performance, firm performance or business performance [15]. There are other variables like the social, economic, environmental and operational activities of a firm [16]. The current study is very important to conduct empirical studies in Ghana to validate and enforce the findings or reject them based on the evidence that may be gathered on green purchasing initiatives among the manufacturing companies in Ghana. Researchers have argued that, conducting a study or repeating a study in a new environment using different data set help to add more value to the research area. Moreover, the researcher intends to comprehensively capture the impact of green procurement or purchasing on operational, market-oriented performance, social, environmental and financial activities of manufacturing companies. There are limited studies that have focused on empirically investigating the impact of green initiatives on economic performance. Again, the more recent observation that very limited literature exists on sustainable procurement studies in developing or underdeveloped countries including Ghana. This current study will fill this knowledge gap by determining the effect of green procurement practices on the performance of some selected companies in Ghana by assessing the moderating role of supplier collaboration.

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.

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 influence of green procurement practice on organisational performance.

2. THEORETICAL REVIEW

The theories underpinning this research are those that will aim at achieving the researcher's research objectives. With regard to the theoretical literature, the study looked at the resource-based view (RBV) and relational view (RV) theories. Below are the various theories which will underpin this study's objectives.

2.1 Resource-based View

The resource-based view theory implies that firm growth and development specifically depends on the available resources within the firm. According to the theory, for a firm to achieve a competitive advantage in the market environment it needs to have adequate resources in order to build the capacity to engage in market activities [17]. Bae

and Park [18], indicated that resources are the major determinant of firm performance and capacities. The RBV theory has been deployed in many studies to explain the conditions associated with industries [19]. The RBV ascertained that companies that have an upper hand in the business environment are those that have adequate resources within their industry [20]. More so, the RBV was employed in this study to help explain the conditions associated with the business operation. However, company resources must be unique such that firms are able to utilize them efficiently to achieve growth and development [21].

The RBV theory indicates that firms' superiority, comparativeness, and advantage in the market environment is determined by the available resources of the company. The theory specifically determines firms' ability and capacity to utilize company resources to achieve desirable results. The theory attests that company resources are heterogeneous and that the strength of a company is its resource competitiveness. Before a firm can dominate in the market area, managers ought to ensure that resources within the industry are adequate so that the firm can adequately utilize resources to achieve intended goals and objectives [22]. The RBV theory shows the significance of firm resources in the business field as in how firms' internal resources can be utilized to increase operational performance [23].

Per the RBV theory, green procurement is simply the acquisition of goods and services through proper procurement planning and scheduling taking into consideration the environmental factors. Hart [24] indicated that firms' capability to achieve superiority in the competitive market place depends on the available resources of the company. Firms can achieve effectiveness in the business field when it has achieved green securing [25]. Cater for instance defined green procurement as the process of acquiring goods or recyclable materials to ensure the safest environment [26].

Green procurement otherwise is defined as the process whereby firms consider environmental factors in their procurement processes so that company assistants can benefit from the overall procurement performance [25]. For example, Bohari et al. [27] ascertained that green procurement is an activity that allows firms to achieve responsible purchases in the procurement process such that the production network of the company is well administered. Esfahbodi et al. [28] indicated that, through green purchases, companies are able to assume business growth and development thus able to manage internal resources to achieve desirable purchases. Green procurement enables firms to engage in activities such as supplier selection, reusing resources, minimizing waste of resources and among others.

Per the theory, firm resources are the major component of firm success and capabilities and therefore resource utilization is very essential should firm can achieve a comparative advantage in the market environment. The theory thereby ascertains that firms' indulgence towards green procurement practices may have an adverse impact on firm performance [29]. The theory was basically developed to help elaborate on the importance of firm resources on operational performance.

2.2 Relational View

The relational view is a theory that conjoins with the RBV by ascertaining that, firms' internal resources have the capacity to cause firm failure or success depending on firms' management capabilities [30]. The relational view opines that for firms to secure it as to go beyond rent as a relational rent is simply a supernormal return generated through an exchange relationship by either firm or through the joint duties of the network situated accessories [30]. Firms are able to secure rent through collaborations and network arranged accessories as well as exchange of unpredictable assets and data. The relational view simply implies that some preferences that are mutual accessories cannot be independent [31]. Nonetheless, relational rents can be secured through an association specific store which is technically between firm picking up sharing timetables, organizing stores legacies and dynamic organization contraption.

2.3 Empirical Review

2.3.1 Green procurement

Green procurement to the Chartered Institute of Purchasing and Supplies-CIPS [32] considers the environmental, social and economic consequences of design, materials used (renewable and non-renewable) by means of manufacturing methods, logistics and disposal. The Ministry of Environment-Japan sees it as a selective procurement of products and services by the suppliers with minimum environmental effects. The concept-green procurement shows

the importance of companies being part of their value chain (VCM) administration in general.

The main aim of VCM here is, therefore, to reduce environmental impacts and enhance added value, with a view to the entire life cycle of business activities, including raw materials from procurement companies, suppliers and downstream companies involved in the manufacture of relevant products, and also including the use and disposal of products (Ministry of the Environment).

Green procurement is therefore based on the belief that companies or organizations can simultaneously benefit from all three elements–economics, the environment and society–and simply from another value-added vehicle [33].

It also has been identified as the capacity to reduce the environmental impacts of government operations and promote environmental goals by integrating environmental considerations in procurement as a part of the government's commitment to improving the environment and the quality of life of its citizens [34]. Most organizations are currently pursuing a green purchasing policy for its supports on an enterprise economically as well as lighten its environmental aspect. Green purchasing likewise can help organizations improve their efficiency, reduce liabilities and gain competitive advantage. The fact is that a green purchasing program is an excellent way of finding products with a high price-performance ratio and with improved use rates [35]. The promotion of green procurement may have the aptitude in mitigating the various environmental problems, thereby creating new business prospects for both governments and corporate entities. However, with such significance, very few studies have shown the awareness level of green procurement among public institutions, particularly in less developed nations. Studies have shown that Low-Income Countries generally lack awareness, have no policy, action plans, or implementation of such policies. Within the African context, green/sustainable development is greatly challenged by poverty and other factors such as lack of awareness and lack of appropriate legal frameworks [36]. Besides, Wallace and Omachar, [37] comments that utilization of green procurement has been quite limited such that a decade ago, only some high-profile organizations mainly chemical firms and/or those firms in the consumer goods sectors that have experienced green consumer pressures directly to practice it. Ghana's Public Procurement Act is relatively new and capacity and law enforcement very weak in the realm of sustainable public procurement which green procurement is a subset (United Nations Environment Programme, [38]. This is supported by ORPF (2014), findings on SPP/green procurement that the Low-Income Countries do not even have the minimum conditions in terms of awareness of environmental and social problems, a sense urgency, political will and country ownership to achieve sustainable procurement. For such policies like green public procurement or SPP in general to thrive, the essential policy and legal framework must be put in place, capacity must be built and the demand and supply sides must understand the new requirements and the applicable techniques. Intriguingly, Sparrevik et al. [39] disclose that public procurement practices have largely been focused on price, whereas the commitment to environmental issues has been an act of faith rather than a predetermined deliverable [40]. Similarly, the environmental protection does not lie in the care of environmental protection agencies only but also lies in the care of procurement managers [41]. It has been shown from extant literature that green procurement is an essential concept that should be embraced by all organizations and institutions to sustain the environment and maintain a healthy life [42]. It's therefore imperative for this study to empirically look at the influence of green procurement practice on organizational performance. The study specifically examines the extent to which supplier collaboration affects performance on Ghana Water Co. Ltd and Bayport Savings and Loans Plc and also examine the moderating role of supplier collaboration on the link between green procurement practices and performance of Ghana Water Co. Ltd and Bayport Savings and Loans Plc and lastly to examine the challenges of implementing green procurement practices at Ghana Water Co. Ltd and Bayport Savings and Loans Plc.

2.3.2 Green procurement practices and performance

Performance represents a direct impact of green practices on basic outcome measurements of firms. It includes the market and financial aspects together with customer satisfaction. Wang [43] found that firms that comply with environmental regulations and adopt environmental practices need to bear additional costs; this leads to reductions in their capacity to compete. When

firms try to enhance performance, they draw resources away from their core activity, resulting in a decrease in profits [44].

The most cited outcome in green supply chain practices is cost reductions and improvement in financial performance. This can be achieved through savings resulting from more complete processing, better utilization of re-used products, and elimination of cost during waste-handling activities, lower energy consumption, lower packaging cost, lower production cost and conversion of waste into valuable forms [45]. Hence, green practices are expected to improve product image and enhance the reputation of a firm in the eyes of the customers through the reduction of rejected orders and thus increased customer satisfaction.

2.3.3 Supplier collaboration and performance

Supplier collaboration is defined as the mutual agreement between two units of suppliers to join together to supply goods and services to satisfy the demands of the clients. Usually, profits are shared among the two parties according to the terms and conditions of the agreement. Suppliers collaborate with each other to achieve a competitive position in the market environment [46]. Within the supply chain, suppliers play the most significant part in the supply of goods and services. This is because consumers can only get access to products when suppliers supply the goods and services to the general market for consumption.

In the production cycle, production is said to be complete when goods and services reach the final consumer. Managers within organizations must also ensure that communication systems between the organization and suppliers are enhanced so that the supply of raw materials for the production process is facilitated to encourage the timely supply of goods and services to boost productivity and services delivery hence promoting organizational performance [47]. Green procurement helps firms to achieve benefits such as cost reduction, waste management and quality purchases. By and by, firms through green procurement practices increase the performance of the organization thereby enhancing the comparative advantage of the organization [48].

2.3.4 Supplier collaboration as a moderator between green procurement practices and performance

Supplier collaboration plays a significant role in enhancing purchasing processes. Supplier – customer relationship is very significant in the purchasing process as it helps to facilitate the acquisition of goods and services [49]. Green acquisition helps to maintain collaborations, integrations, and coordination among members of the chain value thus ensures consistency and responsibility in the procurement process. Despite the benefits of the system, some researchers do not consider the significance of green procurement in organizational activities. For instance, authors like [50] ascertained that green procurement enables organizational managers to achieve high operational performance especially in the manufacturing industry where materials are very essential for the manufacturing process. Manufacturing industries are therefore recommended to adopt green procurements so that procurement activities can be enhanced to achieve better productivity and firm performance.

2.4 Conceptual Framework

Green Procurement practice is said to be an independent variable whilst firm performance is a dependent variable. Supplier collaboration serves as a moderating variable which performs a moderating effect between the independent and dependent variables. The value of the coefficient of the interaction will determine the tendency of the existence of the moderating effect. As illustrated in Fig. 1.

2.4.1 Green procurement practices and firm performance

Since green procurement practices have been propagated across the globe, many researchers and critics tend to wonder the reasons firms to engage in environmentally friendly activities. Researchers like Gonzalez [51] declared that firms' engagement in green activities could benefit organizations from an economic ideology. Through green procurement, firms are able to effectively utilize resources to achieve cost advantage such as reducing resource waste, decreasing energy consumption, lowering packaging cost, reducing production cost and also recycling waste [50]. More so, green procurement is a management technique that helps to improve firm product image and growth hence enhancing the procurement performance within the industry as well as promoting customer satisfaction.

Green procurement practices positively impact firm performance such as increasing firm

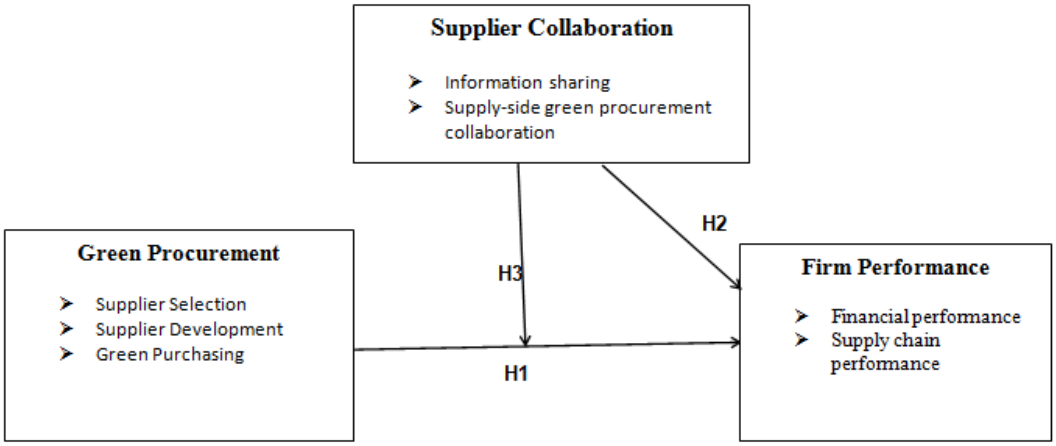

Fig. 1. The study conceptualizes the effect of green procurement and firm performance and the moderating role of supplier collaboration

financial performance and also enhancing productivity within the industry. Firm resources play a significant role in firms' operational activities especially in the commercial activities of the firm [52]. Green supply chain management is also one of the best practices for enhancing business performance. Managers within organizations must ensure that the resources within the industry are well utilized and managed to ensure responsible use of company resources in order to achieve desirable outcomes [52].

Therefore, the researcher hypothesizes the following:

H1: Green procurement practice has a significant positive effect on performance.

2.4.2 Supplier collaboration and performance

Supplier collaboration is defined as the mutual agreement between two units of suppliers to join together to supply goods and services to satisfy the demands of the clients [53]. Usually, profits are shared among the two parties according to the terms and conditions of the agreement. Within the supply chain, suppliers play the most significant part in the supply of goods and services. This is because consumers can only get access to products when suppliers supply the goods and services to the general market for consumption. In the production cycle, production is said to be complete when goods and services reach the final consumer. Managers within organizations must also ensure that communication systems between the organization and suppliers are enhanced so that the supply of raw materials for the production process is facilitated to encourage the timely supply of goods and services to boost productivity and services delivery hence promoting organizational performance [47]. Green procurement helps firms to achieve benefits such as cost reduction, waste management, and quality purchases. By and by, firms through green procurement practices increase the performance of the organization thereby enhancing the comparative advantage of the organization Paulraj [48]. By this, the researcher hypothesis that:

H2: Supplier collaboration has a significant positive effect on firms' performance.

2.4.3 Green procurement practices and supplier collaboration

Green procurement practices had become one of the best techniques used by firms in achieving a comparative advantage in the market environment [54]. Firms must make sure that all purchases are done according to the procurement processes and procedures and also considering the environment to avoid environmental depletion. Dubey et al. [55] indicated that supplier collaboration and green procurement have a significant impact on firm performance. Firms are therefore obliged to consider these two practices in order to increase the overall performance of the organization hence promoting integration and coordination in the supply chain. However, there have been limited searches on the impact of green procurement practices on firm performance and

therefore the need for further searches in the area to explore new knowledge. It is therefore hypothesized that:

> H3: Green procurement practice and Supplier Collaboration will have Moderating effect on firm performance.

3. MATERIALS AND METHODS

This study adopted a comparative analysis on Ghana Water Co. Ltd and Bayport Savings and Loans Plc with respect to Green Procurement practice and organizational performance by assessing the moderating role of supplier collaboration. This study employed a quantitative research approach; a structured questionnaire was used to solicit for primary data. SPSS was used to analyze the data. To select a representative sample from a target population of 250 employees with 160 respondents as the sample size, a convenient sampling technique was adopted. Likert- Scale questionnaires were designed and administered to the staff of Ghana Water Co. Ltd and Bayport Savings and Loans Plc.

3.1 Research Design

The foundation of the research was premised on the objectivist approach, which means the study was quantitative research [56]. A quantitative approach was used to investigate Green Procurement practices and organizational performance by assessing the moderating role of supplier collaboration comparative analysis on Ghana Water Co. Ltd and Bayport Savings and Loans Plc. The nature of the study demands the use of descriptive and explanatory research designs. Descriptive designs provide an enhanced knowledge about a study variable while explanatory designs measure associations among study variables [57]. According to Rahi, S [58], research design help to determine how data will be reported, described and used to explain social phenomenon.

3.2 Population of the Study

The population defines the individuals, materials, and elements that constitute the study population to be selected as a sample. The researchers investigated Green Procurement practices and organizational performance by assessing the moderating role of supplier collaboration comparative analysis on Ghana Water Co. Ltd and Bayport Savings and Loans Plc. Based on this, the study population comprised of all staffs of Ghana Water Co. Ltd and Bayport Savings and Loans Plc.

3.3 Sampling Techniques and Size

Since the population of Ghana Water Co. Ltd and Bayport Savings and Loans Plc is large, there was the need to select out of the population a sample as a representation of the larger population. Purposive sampling techniques were used to choose Ghana Water Co. Ltd and Bayport Savings and Loans Plc and a convenient sampling approach was used to select the various respondents. A total of 160 respondents were selected, 80 each from each company (Ghana Water Co. Ltd and Bayport Savings and Loans Plc.).

The researcher estimated 160-sample size for the study. A convenient sampling technique was used to select and administer research questionnaires to the respondents. This was done to obtain the needed knowledge and ideas of the respondents on the subject matter. A convenient sampling technique was used because they allow the researcher to administer questionnaires to respondents who were willing to answer the research questions.

3.4 Data Collection Methods

3.4.1 Primary data

According to Kothari [59], 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.

3.4.2 Questionnaire method

Structured questionnaires were the main instrument used for data collection. Questionnaires were mostly printed and structured questions that were formulated based on the research objectives. Data collection was geared towards investigating Green Procurement practices and organizational performance by assessing the moderating role of supplier collaboration comparative analysis on Ghana Water Co. Ltd and Bayport Savings and Loans Plc. Structured questionnaires were used because they were the cheapest means of gathering data and they have the capacity to collect data from a larger sample within a short time [60].

Table 1. Sample size estimation

Name of company	Employees	Senior staffs	Total
Ghana Water Co. Ltd.	70	10	80
Bayport Savings and Loans Plc	70	10	80
Total	140	20	160

Sources: Author's Estimation

3.4.3 Secondary data

A secondary data was collected from the records of these companies, from research journals, article papers, and related documents. Secondary data are necessary to determine whether the findings in the literature are confirmed or rejected.

4. RESULTS AND DISCUSSION

The study used both inferential (correlations and regressions) and descriptive analysis (means and standard deviations) for the study. Cronbach alpha was used to test for the reliability of the research instruments. Overall 160 questionnaires were distributed out of which 110 useable responses were received recording 68.5% response rate. The results have been presented in the dual pattern due to the comparative analysis.

From the study results obtained from Ghana, Water Co. Ltd. revealed that most (63.6%) of the respondents indicated that they have achieved their diploma and the rest (36.4%) of the respondents indicated that they have had their bachelor's degree. In relation to the current position, most (61.8%) of the participants revealed that they were inventory managers, 21.8% said they were financial officers, 10.9% said they were currently procurement officers and the least (5.5%) of the respondents showed that they were managers. With regards to years of working, most (52.7%) of the respondents said that they have worked for 5-10 years in their current position, 36.4% said they have worked for more than 10 years and the least (10.9%) of the respondents showed that they have worked in their position for 1-5 years. Last, the study found that most (36.4%) of the respondents showed that their organization had been in business for more than 10 years, 23.6% of the respondents said their business had been in operation for 5-10 years, another 23.6% of the respondents revealed that their organization had been in business for less than one year and the least (16.4%) of the respondents showed that their organization had been working for 1-5 years.

Results obtained from Bayport Savings and Loans indicated that the majority (63.6%) of the respondents had acquired their diploma and the least (36.4%) of the participants had also acquired their bachelor's degree. In relation to the current position, most (60.0%) of the respondents indicated that they were inventory managers, 23.6% were finance officers, 12.7% also indicated that they were procurement officers and the rest (3.6%) of the respondents showed that they were managers. With regards to years of working, more than half (52.7%) of the respondents revealed that they have been working in their positions for about 5-10 years, 34.5% said more than 10 years and the least (12.7%) of the participants indicated that they have been in their position for 1-5 years. Last, maximum (36.4%) of the respondents asserted that their organization had been in business for more than 10 years, 23.6% said for about 5-10 years, 20.0% also said their company had been in business for 1-5 years and another 20.0% of the respondents said their institution had been in business less than 1 year.

4.1 Green Procurement Practices

Descriptive analysis results are presented here with reference to green procurement practices using means and standard deviations. The study employed 5 –point Likert scale where a mean of 5 implies that respondents had strongly agreed to the statement in question while a mean of 1 suggests that respondent had strongly disagreed to the statement in question.

As shown in Table 2 with reference to Ghana Water Co. Ltd, the overall mean score for all items ranged from 2.4 to 4.6. From the standard deviation scale, the standard deviation for all items did not exceed 1 thereby showing considerable variation in the responses of the respondents in relation to green procurement practices. The majority of the respondents had agreed that they practiced green procurement practices in their procurement process. A mean score of 4.6 indicated that respondents had agreed to the item "We frequently select suppliers who use energy conservation products/service", respondents with a mean

score of 4.4 also agreed to the item "We only deal with suppliers whose products are considered Green". Again, respondents with a mean score of 4.3 agreed to the item "We frequently select suppliers who use Green Materials such as recycle, re-use, reduce, re-furbish" and respondents with a mean score of 2.4, however, disagreed with the item "We frequently cooperate with suppliers for environmental objectives". This implies that most of the participants were enthused about the green procurement practices of their institution since through procurement practices they have been able to enhance performance. For instance, participants showed that they frequently train their suppliers on green practice. Also, respondents indicated that they frequently select suppliers who use Green Materials such as recycle, re-use, reduce, re-furbish and another respondent showed that they frequently select suppliers who use energy conservation products/services. This thereby demands organizations to adopt measures and strategies to help improve green procurement practices to achieve efficiency in all procurement functions.

From the Bayport Savings and Loans perspective, the overall mean score for all items ranged from 2.3 to 4.6. From the standard deviation scale, the standard deviation for all items did not exceed 1 thereby showing considerable variations in the responses of the respondents in relation to green procurement practices. The majority of the respondents had somewhat agreed that their organization observed green procurement practices in their procurement process. A mean score of 4.6 indicated that respondents had agreed to the item "We frequently select suppliers who use energy conservation products/service", respondents with a mean score of 4.5 also agreed to the item "We only deal with suppliers whose products are considered Green" and respondents with mean score of 2.3 otherwise disagreed to the item "We frequently cooperate with suppliers for environmental objectives". This implies that most of the participants were pleased with the procurement practices in their organization since it enables them to achieve transparency and efficiency in their procurements. For instance, participants showed that their suppliers' relationship management was aimed at promoting green. Also, respondents indicated that they frequently communicate on green procurement KPI's with suppliers and another respondent showed that they frequently conduct second-tier supplier environmentally friendly practice evaluation before taken.

4.2 Supplier Collaboration

Descriptive analysis results are presented here with reference to supplier collaboration using means and standard deviations. The study employed 5 –point Likert scale where a mean of

Table 2. Demographics profile of the respondents

Demographics	Ghana Water Co. Ltd.		Bayport Savings and Loans	
	N	%	N	%
Level of education				
Diploma	35	63.6	35	63.6
Bachelor's degree	20	36.4	20	36.4
Current position				
Manager	3	5.5	2	3.6
Procurement officer	6	10.9	7	12.7
Inventory manager	34	61.8	33	60.0
Finance Officer	12	21.8	13	23.6
Years of working in the position				
1-5 years	6	10.9	7	12.7
5-10 years	29	52.7	29	52.7
More than 10 years	20	36.4	19	34.5
Years organization has been in existence				
Less than one year	13	23.6	11	20.0
1-5 years	9	16.4	11	20.0
5-10 years	13	23.6	13	23.6
More than 10 years	20	36.4	20	36.4

Source: Field Data, 2020

Table 3. Green procurement practices

Statements	Ghana Water Co. Ltd.	Bayport Savings and Loans
	Mean ± SD	Mean ± SD
Supplier selection		
We only deal with suppliers whose products are considered Green	4.45 ± 1.25	4.52 ± 1.16
We frequently select suppliers who use Green Materials such as recycle, re-use, reduce, re-furbish	4.30 ± 0.95	4.30 ± 0.95
We frequently select suppliers who use Green packaging material	4.00 ± 1.37	3.83 ± 1.43
We frequently select suppliers who use energy conservation products/service	4.61 ± 0.70	4.63 ± 0.70
We only deal with suppliers whose products reduce the use of harmful substance	4.32 ± 1.05	4.29 ± 1.10
We only deal with suppliers who have ISO 14001certification	3.87 ± 1.47	3.72 ± 1.53
Green purchasing		
We frequently ensure environmental requirements for purchased item	3.74 ± 1.43	3.70 ± 1.39
We always provide design specifications to suppliers that include environmental requirements for purchased items.	3.67 ± 1.50	3.58 ± 1.51
We frequently conduct second-tier supplier environmentally friendly practice evaluation before taken	3.60 ± 1.43	3.52 ± 1.51
We frequently assess environmental audit of suppliers' internal management	3.63 ± 1.51	3.56 ± 1.52
We frequently cooperate with suppliers for environmental objectives	2.49 ± 1.80	2.36 ± 1.74
Supplier development		
Our suppliers' relationship management is aimed at promoting green	3.21 ± 1.61	3.16 ± 1.57
Our suppliers invest (financial, machinery, technology) in green products	3.52 ± 1.43	3.34 ± 1.43
Supplier visits	3.78 ± 1.39	3.60 ± 1.47
We frequently communicate on green procurement KPI's with suppliers.	3.61 ± 1.53	3.52 ± 1.52
We frequently train our supplier on green practice	3.05 ± 1.64	3.01 ± 1.60
We reward/award our suppliers for improvements in green practice	3.58 ± 1.52	3.47 ± 1.52

Source: Field Data, 2020

5 implies that respondents had strongly agreed to the statement in question while a mean of 1 suggests that respondent had strongly disagreed to the statement in question.

In the table results from Ghana Water Co. Ltd, perspective indicated that the overall mean score of all items ranged from 2.2 to 4.1. From the standard deviation scale, the standard deviation of all items did not exceed 1 thereby showing considerable variation in the responses of the respondents in relation to supplier collaboration. Most of the respondents somewhat agreed to the item "Our suppliers always inform us in advance of changes in the purchasing environment", respondents with a mean score of 3.8 somewhat agreed to the item "We share information on inventory policy with our suppliers", a mean score of 3.5 also showed that respondents had somewhat agreed to the item "We periodically provide suppliers with feedback about their green". Also, respondents with a mean score of 3.6 somewhat agreed to the item "We develop a mutual understanding of responsibilities regarding green procurement performance with our supplier" and respondents with a mean score of 2.2 otherwise disagreed with the item "We share information on supply status with our suppliers". This implies that participants were somehow satisfied with the collaboration systems

within their organizations. For instance, respondents revealed that they conduct joint planning to anticipate and resolve green procurement-related problems with the supplier. Also, participants showed that their suppliers always inform them in advance of changes in the purchasing environment and other respondents also showed that they believed their suppliers freely shared important information that is of interest with them.

As observed from the Bayport Savings and Loans perspective, the overall mean score of all items ranged from 2.2 to 4.0. From the standard deviation scale, the standard deviation of all items did not exceed 1 thereby showing considerable variations in the responses of the respondents in relation to supplier collaboration. The maximum of the respondents somewhat agreed that supplier collaboration was part of their procurement process. A mean score of 4.0 indicated that respondents had agreed to the item "Our suppliers always inform us in advance of changes in the purchasing environment". Also, respondents with a mean score of 3.8 also somewhat agreed to the item "We provide our suppliers with requirements that include green procurement requirements for their processes" while respondents with a mean score of 2.2 otherwise disagreed to the item " somewhat agreed to the item "We develop a mutual understanding of responsibilities regarding green procurement performance with our supplier" and respondents with mean score of 2.2 otherwise disagreed to the item "We share information on price changes with their suppliers". This implies that participants were somehow convenient with the collaboration systems within their organizations. For instance, respondents revealed that they developed a mutual understanding of responsibilities regarding green procurement performance with their suppliers. Also, participants showed that they conducted joint planning to anticipate and resolve green procurement-related problems with the supplier and other respondents also showed that they share information on supply status with their suppliers.

4.3 Organizational Performance

Descriptive analysis results are presented here with reference to organizational performance using means and standard deviations. The study employed 5 –point Likert scale where a mean of 5 implies that respondents had strongly agreed to the statement in question while a mean of 1 suggests that respondent had strongly disagreed to the statement in question.

As shown in Table 4. from Ghana Water Co. Ltd's perspective results showed that the overall mean score of all items ranged from 3.1 to 4.8. From the standard deviation scale, the standard deviation for all items did not exceed 1 thereby showing considerable variations in the responses of the respondents in relation to organizational performance. Most of the respondents agreed that green procurement practices had increased their organizational performance. Respondents with a mean score of 4.8 agreed to the item "We are able to satisfy our customers as a result of GPP". Respondents with a mean score of 4.6 also agreed to the item "We are able to improve the relationship with customers as a result of GPP". Furthermore, respondents with a mean score of 4.4 agreed to the item "We are able to improve record-keeping practices as a result of GPP" and the least of the respondents with a mean score of 3.1 somewhat agreed to the item "We offer products that are highly reliable". This thereby implies that participants had indicated that their green procurement practices had helped them improve value for money and also enhance performance. For instance, participants showed that they were able to satisfy their customers as a result of GPP. Respondents also indicated that they were able to reduce scrap rate in the firm as a result of GPP and another respondent asserted that their GPP practices had enabled them to reduce cost in waste management.

From the Bayport Savings and Loans perspective, the overall mean score of all items ranged from 2.9 to 4.8. From the standard deviation scale, the standard deviation for all items did not exceed 1 thereby showing considerable variations in the responses of the respondents in relation to organizational performance. Most of the respondents agreed that as a result of green procurement practices their organizational performance had been improved. Respondents with a mean score of 4.8 agreed to the item "We are able to satisfy our customers as a result of GPP". Respondents with a mean score of 4.6 also agreed to the item "We are able to improve the relationship with customers as a result of GPP". Furtherance, respondents with a mean score of 4.7 agreed to the item "We are able to reduce scrap rate in the firm as a result of GPP" and the least of the respondents with a mean score of 2.9, however, disagreed to the item "We offer products that are

highly reliable". This thereby implies that green procurement practices help to enhance organizational performance as shown by the respondents concerning their organization. For instance, participants showed that they were able to improve relationship with customers as a result of GPP. Respondents also indicated that they were able to compete based on quality and other respondents asserted that they were able to take productive actions.

4.4 Test of Reliability and Validity

As indicated in Table 6 the reliability of the measurement scales was measured using Cronbach alpha test. The study showed that green procurement practices were measured using 17 items and scored 0.851 and 0.858 Cronbach alpha values respective for Ghana Water Co. Ltd and Bayport Savings and Loans. Again, the study also assessed supplier collaboration using 14 items and scored 0.920 and 0.927 Cronbach alpha values respective for Ghana Water Co. Ltd and Bayport Savings and Loans. Finally, organizational performance was measured with 23 items and scored 0.822 and 0.827 Cronbach alpha values respectively for Ghana Water Co. Ltd and Bayport Savings and Loans. These results suggest that the measurement scales were reliable above the acceptable limit.

4.5 Correlation Matrix

As indicated in Table 7 from the Ghana Water Co. Ltd perspective the study found a significant relationship between green procurement practices and organizational performance ($r=0.765$, p-value < 0.05). Moreover, a significant ($r=0.812$, p-value < 0.05) relationship was found between supplier collaboration.

From the perspective of Bayport Savings and Loans as indicated in Table 8, the study found that there was a significant correlation between green procurement practices and organizational performance ($r=0.907$, p-value < 0.05). Again, a significant correlation was found between supplier collaboration and organizational performance ($r=0.817$, p-value < 0.05).

4.6 Multiple Regression Results

As indicated in Table 9 from the perspective of Ghana Water Co. Ltd the study found that 58.4% variability in organizational performance was caused by changes in green supply chain practices as shown in model 1. The study found that green procurement was a significant determinant of organizational performance. On the contrary, from the perspective of Bayport Savings and Loans, the study found that 62.1% variability in organizational performance was caused by changes in green supply chain practices as shown in model 1.

The study found that green procurement was a significant determinant of organizational performance. From the perspective of Ghana Water, the study found that 65.2% variability in organizational performance was caused by changes in supplier collaboration. The study found that supplier collaboration has a significant effect on organizational performance. On the other hand, from the perspective of Bayport Savings and Loans, the study found that 66.7% variability in organizational performance was caused by changes in supplier collaboration. The study found that supplier collaboration has a significant effect on organizational performance.

From the perspective of Ghana Water, the study again revealed the 64.6% variability in organizational performance caused by changes in the moderating effect of green procurement practices and supplier collaboration. The study found that supplier collaborations significantly moderate the relationship between green procurement and organizational performance. On the other hand, from the perspective of Bayport, the study found that the 67.0% variability in organizational performance caused by changes in the moderating effect of green procurement practices and supplier collaboration. The study found that supplier collaborations significantly moderate the relationship between green procurement and organizational performance.

4.6.1 Effect of green procurement practices on performance at Ghana Water Co. Ltd. and Bayport Savings and Loans

The study revealed from the perspective of Ghana Water Co. Ltd that 58.4% variability in organizational performance was caused by changes in green supply chain practices as shown in model 1. The study found that green procurement was a significant determinant of organizational performance. On the contrary, from the perspective of Bayport Savings and Loans, the study found that 62.1% variability in organizational performance was caused by changes in green supply chain practices as shown in model 1. The study found that green procurement was a significant determinant of organizational performance. Therefore, H1 is supported. Since green procurement practices

Table 4. Supplier collaboration

Statements	Ghana Water Co. Ltd.	Bayport Savings and Loans
	Mean ± SD	Mean ± SD
Supplier side green procurement collaboration		
We cooperate with our suppliers to achieve green procurement objectives	2.94 ± 1.54	2.96 ± 1.51
We provide our suppliers with requirements that include green procurement requirements for their processes	3.96 ± 1.31	3.80 ± 1.36
We collaborate with our suppliers to provide products and/or services that support our green procurement goals	3.85 ± 1.50	3.69 ± 1.57
We develop a mutual understanding of responsibilities regarding green procurement performance with our supplier	3.63 ± 1.31	3.60 ± 1.25
We conduct joint planning to anticipate and resolve green procurement-related problems with the supplier	3.80 ± 1.41	3.65 ± 1.45
We periodically provide suppliers with feedback about their green procurement performance	3.58 ± 1.48	3.43 ± 1.56
Information sharing		
We share information on delivery schedules with our suppliers	3.38 ± 1.60	3.18 ± 1.62
We share information on price changes with our suppliers	2.23 ± 1.40	2.23 ± 1.37
Our suppliers share with us information about relevant third parties for our successful operations	2.92 ± 1.61	2.80 ± 1.59
We share information on supply disruption with our suppliers	3.90 ± 1.53	3.67 ± 1.63
We share information on inventory policy with our suppliers	3.89 ± 0.87	3.78 ± 0.91
Our suppliers always inform us in advance of changes in the purchasing environment	4.14 ± 1.17	4.00 ± 1.21
We share information on supply status with our suppliers	3.30 ± 1.67	3.14 ± 1.67
We believe our suppliers freely share important information that is of interest to us	4.01 ± 1.38	3.85 ± 1.41

Source: Field Data, 2020

have been propagated across the globe, many researchers and critics tend to wonder the reasons firms engage in environmentally friendly activities. Researchers like Carter [61] declared that firms' engagement in green activities could benefit organizations from an economic ideology. Through green procurement, firms are able to effectively utilize resources to achieve cost advantage such as reducing resource waste, decreasing energy consumption, lowering packaging cost, reducing production cost and also recycling waste [50]. More so, green procurement is a management technique that helps to improve firm product image and growth hence enhancing the procurement performance within the industry as well as promoting customer satisfaction.

4.6.2 Effect of supplier collaboration affects performance Ghana Water Co. Ltd. and Bayport Savings and Loans Plc

The study discovered from the perspective of Ghana Water Co. Ltd that 65.2% variability in organizational performance was caused by changes in supplier collaboration. The study found that supplier collaboration has a significant effect on organizational performance. On the other hand, from the perspective of Bayport Savings and Loans, the study found that 66.7% variability in organizational performance was caused by changes in supplier collaboration. The study found that supplier collaboration has a significant effect on organizational performance. Therefore, H2 is supported. Suppliers collaborate with each other to achieve a competitive position in the market environment [46]. Within the supply chain, suppliers play the most significant part in the supply of goods and services. This is because consumers can only get access to products when suppliers supply the goods and services to the general market for consumption. In the production cycle, production is said to be complete when goods and services reach the final consumer. Managers within organizations must also ensure that communication systems between the organization and suppliers is enhanced so that the supply of raw materials for

the production process is facilitated to encourage timely supply of goods and services to boost productivity and services delivery hence promoting organizational performance [47].

Table 5. Organizational performance

Statements	Ghana Water Co. Ltd.	Bayport Savings and Loans
	Mean ± SD	Mean ± SD
Financial performance		
Our GPP practice has increased our profit margins	3.61 ± 1.53	3.43 ± 1.57
Our GPP practice has increased our return on investment	4.01 ± 1.42	3.83 ± 1.46
Our GPP practice has increased our market share costs	3.74 ± 1.57	3.60 ± 1.62
Our GPP practice has reduced procurement costs	3.60 ± 1.36	3.45 ± 1.42
Our GPP practice has reduced costs in waste management	3.85 ± 1.61	3.61 ± 1.68
Our GPP practice has improved our service delivery	3.72 ± 1.36	3.56 ± 1.39
Efficiency		
We are able to compete based on quality.	3.38 ± 1.54	3.18 ± 1.56
We offer products that are highly reliable.	3.16 ± 1.57	2.96 ± 1.55
We deliver to market quick	3.36 ± 1.35	3.23 ± 1.38
We are first in the market in introducing new products.	3.56 ± 1.67	3.43 ± 1.67
We are responsive to our customers	3.60 ± 1.73	3.63 ± 1.74
Effectiveness		
Our consignments always arrive on time	4.25 ± 1.20	4.10 ± 1.30
We have a clear division of responsibilities	3.67 ± 1.59	3.70 ± 1.58
We track and trace our products/service	4.49 ± 0.83	4.43 ± 0.85
We are able to take productive actions	4.43 ± 1.01	4.40 ± 1.02
We are very proactive	4.01 ± 1.29	4.05 ± 1.29
We offer pre-sale customer service	3.81 ± 1.12	3.87 ± 1.10
Quality		
Our GPP practice has improved the quality of services we offer to customers	3.36 ± 1.32	3.38 ± 1.31
High quality of processes used in our firm as a result of GPP	4.70 ± 0.45	4.69 ± 0.46
We are able to improve the relationship with customers as a result of GPP	4.63 ± 0.70	4.61 ± 0.70
We are able to improve record-keeping practices as a result of GPP	4.49 ± 0.76	4.47 ± 0.83
We are able to reduce the scrap rate in the firm as a result of GPP	4.76 ± 0.42	4.74 ± 0.43
We are able to satisfy our customers as a result of GPP	4.81 ± 0.38	4.80 ± 0.40

Source: Field Data, 2020

Table 6. Internal consistency of construct

Constructs	Ghana Water Co. Ltd.		Bayport Savings and Loans	
	Items	Cronbach Alpha	Items	Cronbach Alpha
Green procurement practices	17	0.851	17	0.858
Supplier collaboration	14	0.920	14	0.927
Organizational performance	23	0.822	23	0.827

Table 7. Correlation matrix (Ghana Water Co. Ltd.)

	Green procurement practices	Supplier collaboration	Organizational performance
Green Procurement Practices	1		
Supplier Collaboration	0.881** (0.000)	1	
Organizational Performance	0.765** (0.000)	0.812** (0.000)	1

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

Table 8. Correlation matrix (Bayport Savings and Loans Plc)

	Green procurement practices	Supplier collaboration	Organizational performance
Green Procurement Practices	1		
Supplier Collaboration	0.907** (0.000)	1	
Organizational Performance	0.788** (0.000)	0.817** (0.000)	1

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

Table 9. Multiple regression

Model	Ghana Water Co. Ltd.				Bayport Savings and Loans Plc			
	Beta	Std. Err	t-value	p-value	Beta	Std. Err	t-value	p-value
Model 1								
Green procurement practices (GPP)	.775	.090	8.634	0.000	.807	.087	9.313	0.000
Model 2								
Supplier collaboration (SC)	.770	.076	10.118	0.000	.767	.074	10.315	0.000
Model 3								
GPP x SC	.008	.001	9.987	0.000	.008	.001	10.510	0.000
Model fitness								
	Model 1	**Model 2**	**Model 3**		**Model 1**	**Model 2**	**Model 3**	
R	0.765	0.812	0.808		0.788	0.817	0.822	
R Square	0.584	0.659	0.653		0.621	0.667	0.676	
Adjusted R Square	0.577	0.652	0.646		0.614	0.661	0.670	
F-statistics	74.554	102.375	99.737		86.734	106.391	110.454	
Prob	0.000	0.000	0.000		0.000	0.000	0.000	

4.6.3 Moderating role of supplier collaboration on the link between green procurement practices and performance of Ghana Water Co. Ltd. and Bayport Savings and Loans Plc

The study found from the perspective of Ghana water that 64.6% variability in organizational performance caused by changes in the moderating effect of green procurement practices and supplier collaboration. The study found that supplier collaborations significantly moderate the relationship between green procurement and organizational performance. On the other hand, from the perspective of Bayport, the study found that the 67.0% variability in organizational performance caused by changes in the moderating effect of green procurement practices and supplier collaboration. The study found that supplier collaborations significantly moderate the relationship between green procurement and organizational performance. Therefore, H3 is supported. Green procurement practices have been viewed to be enhanced with the participation of an efficient and effective participation from suppliers since suppliers play a moderating role in ensuring green procurement practices. Dubey et al. [55] indicated that supplier collaboration and green procurement have a significant impact on firm performance. Firms are, therefore, obliged to consider these two practices in order to increase the overall performance of the organization hence promoting integration and coordination in the supply chain. However, there have been limited searches on the impact of green procurement practices on firm performance and therefore the need for further searches in the area to explore new knowledge.

As indicated in Table 10 the overall mean scores for both Ghana Water Co. Ltd and Bayport Savings and Loans Plc indicated that there are challenges in practicing green procurement. The challenges spanned from lack of top management support, lack of cooperation from the staff, weak knowledge on green procurement, little knowledge on the relevance of green procurement, the cost of fully implementing green procurement, lack of supplier cooperation. According to the survey, these among others are the challenges affecting green procurement practices in both Ghana Water Co. Ltd and Bayport Savings and Loans

Plc. Clearly, there are no differences in terms of challenges facing the two companies with regard to green procurement challenges.

5. FINDING

This section outlines the main findings of the study which are organized into the specific objectives.

5.1 Effect of Green Procurement Practices on Performance at Ghana Water Co. Ltd. and Bayport Savings and Loans

The study revealed from the perspective of Ghana Water Co. Ltd that 58.4% variability in organizational performance was caused by changes in green supply chain practices as shown in model 1. The study found that green procurement was a significant determinant of organizational performance. On the contrary, from the perspective of Bayport Savings and Loans, the study found that 62.1% variability in organizational performance was caused by changes in green supply chain practices as shown in model 1. The study found that green procurement was a significant determinant of organizational performance.

5.2 Effect of Supplier Collaboration Affects Performance Ghana Water Co. Ltd. and Bayport Savings and Loans Plc

The study discovered from the perspective of Ghana Water Co. Ltd that 65.2% variability in organizational performance was caused by changes in supplier collaboration. The study found that supplier collaboration has a significant effect on organizational performance. On the other hand, from the perspective of Bayport Savings and Loans, the study found that 66.7% variability in organizational performance was caused by changes in supplier collaboration. The study found that supplier collaboration has a significant effect on organizational performance.

5.3 Moderating Role of Supplier Collaboration on the Link between Green Procurement Practices and Performance of Ghana Water Co. Ltd. and Bayport Savings and Loans Plc

The study found from the perspective of Ghana Water Co. Ltd that 64.6% variability in organizational performance caused by changes in the moderating effect of green procurement practices and supplier collaboration. The study found that supplier collaborations significantly moderate the relationship between green procurement and organizational performance. On the other hand, from the perspective of Bayport, the study found that 67.0% variability in organizational performance caused by changes in the moderating effect of green procurement practices and supplier collaboration. The study found that supplier collaborations significantly moderate the relationship between green procurement and organizational performance.

5.4 Challenges Affecting Green Procurement Practices in Both Ghana Water Co. Ltd. and Bayport Savings and Loans Plc

The study found that the overall mean scores for both Ghana Water Co. Ltd and Bayport Savings

Table 10. Challenges affecting green procurement practices

Statements	Ghana Water Co. Ltd.	Bayport Savings and Loans
	Mean ± SD	Mean ± SD
The is weak top management support for green procurement	4.43 ± 0.85	4.45 ± 0.82
There is a lack of cooperation from the staff	4.59 ± 0.72	4.60 ± 0.83
There is a lack of stakeholders' involvement in the design	4.57 ± 0.85	4.61 ± 0.85
Opposition from the staff	4.67 ± 0.72	4.66 ± 0.76
Resistance to change	4.49 ± 0.83	4.48 ± 0.91
There is inadequate knowledge on green procurement	4.35 ± 0.92	4.35 ± 0.93
There is lack of institutional support	4..62 ± 0.91	4.64 ± 0.92
There is little known about the relevance of green procurement	4..47 ± 0.85	3.47 ± 0.86
It is very expensive to adopt green procurement	4.58 ± 0.72	4.56 ± 0.71
There is lack of supplier cooperation	4.55 ± 0.77	4.58 ± 0.74

Source: Field Data, 2020

and Loans Plc indicated that there are challenges in practicing green procurement. The challenges spanned from lack of top management support, lack of cooperation from the staff, weak knowledge on green procurement, little knowledge on the relevance of green procurement, the cost of fully implementing green procurement, lack of supplier cooperation. According to the survey, these among others are the challenges affecting green procurement practices in both Ghana Water Co. Ltd and Bayport Savings and Loans Plc. Clearly, there are no differences in terms of challenges facing the two companies with regard to green procurement challenges.

6. CONCLUSIONS

This study was a comparative analysis of Ghana Water Co. Ltd and Bayport Savings and Loans Plc with respect to Green Procurement practice and organizational performance by assessing the moderating role of supplier collaboration. From the perspective of Ghana Water Co Ltd, the study found that green procurement was a significant determinant of organizational performance. And also from the perspective of Bayport Savings and Loans, the study found that green procurement was a significant determinant of organizational performance. Moreover, from the perspective of Ghana Water Co. Ltd, the study found that supplier collaboration has a significant effect on organizational performance. On the other hand, from the perspective of Bayport Savings and Loans, the study also found that supplier collaboration has a significant effect on organizational performance. From the perspective of Ghana Water Co. Ltd, the study again revealed that supplier collaborations significantly moderate the relationship between green procurement and organizational performance. On the other hand, from the perspective of Bayport, the study found that supplier collaboration significantly moderates the relationship between green procurement and organizational performance. The study found both Ghana Water Co. Ltd and Bayport Savings and Loans Plc as indicated that challenges in practicing green procurement spanned from lack of top management support, lack of cooperation from the staff, weak knowledge on green procurement, little knowledge on relevance of green procurement, the cost of fully implementing green procurement, lack of supplier cooperation. According to the survey, these among others are the challenges affecting green procurement practices in both Ghana Water Co. Ltd and Bayport Savings and Loans Plc.

7. RECOMMENDATIONS

The following recommendations are made based on the findings of the study. The study found that green procurement was a significant determinant of organizational performance in both Bayport Savings and Loans and Ghana Water Co. Ltd. The study recommends that the management of the two companies must ensure continuous improvement in their green procurement practices in order to ensure the effectiveness and efficiency of the company's operations.

Moreover, the study found that supplier collaboration has a significant effect on organizational performance in both Bayport Savings and Loans and Ghana Water Co. Ltd. The study, therefore, recommends that management of the two companies must ensure that the main strong collaborations with their green suppliers in order to enhance their performances in an effective and efficient manner.

Again, the study found that supplier collaborations significantly moderate the relationship between green procurement and organizational performance in both Bayport Savings and Loans and Ghana Water Co Ltd. The study, therefore, recommends that the management of the two companies must strengthen their collaborations with their suppliers in order to enhance their performances in an effective and efficient manner.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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