



EXAMINING THE COCOA PROCUREMENT AND QUALITY ASSURANCE PROCESS IN GHANA

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ABSTRACT

The cocoa industry cannot undervalue the procurement sector in the supply chain as a crucial agent in today's globalized environment when firms are fiercely competing for survival. For the cocoa industry to be successful in delivering customer, societal, and shareholder value, procurement must play a crucial role based on three pillars: the environment, the social, and the economy. There is a paucity of literature on how Ghana's cocoa procurement and quality assurance processes are studied. However, the cocoa industry makes a significant contribution to Ghana's economy. In light of this, the study looked into the cocoa procurement and quality assurance processes in Ghana. The design of the study was a descriptive design with quantitative method. The data for the study came from a primary source, through the use of questionnaires and surveys. A sample size of one hundred and twenty (120) members of PBCs and LBCs was chosen, and respondents for the study were chosen using probability sampling. The data was analyzed and displayed in tables using the Statistical Package for Social Sciences version 26.0. The study revealed that, corruption is avoided through the procurement process. This is because COCOBOD adheres to the method at all stages of the cocoa production and supply chain. It was revealed by the study that, for a certain product or commodity category, the procurement process finds the optimum supplier method. The study found that quality assurance allows COCOBOD save time. The study shows that quality control is beneficial to COCOBOD's reputation. Lastly, quality control helps COCOBOD save money.

Keywords: Cocoa, Procurement, Quality assurance process, Ghana Cocoa Board, Economy

1. INTRODUCTION

For the past two decades, there has been a global focus on sustainability in the Agriculture, media, business, and the general public (Craig & Rogers, 2008). Taking into account, for example, the rate of environmental degradation, worker health and safety, pollution, if the current trend is not checked and regulated, the environmental harm will be harder to ignore, and humanity's survival may be jeopardized (Agyei, Akraasi, Koomson, & Akraasi, 2021). There is an understanding of commodities production, industrialism's fundamental role in creating welfare, specialization within supply chains within globalisation, and so procurement has become extremely significant (Bai & Sarkis, 2009). Though some businesses implement sustainable procurement because of its perceived importance, it is rare to see organizations in developing nations being pushed or compelled to do so (Berry & McCarthy, 2011).

Companies cannot undervalue the procurement sector in their supply chain as a crucial agent in today's globalized environment when firms are fiercely competing for survival (Chartered Institute of Purchasing and Supply, 2012). Because procurement is such a supply chain's important part, adopting sustainable practices by suppliers will go a long way toward improving the supply chain's overall sustainability performance (Chopra, 2017). Traditionally, the procurement function was responsible for the organization's purchasing process. According to Weele (2018), the procurement sector entails identifying procurement requirements, selecting a supplier, finding the appropriate price, and specifying conditions and terms, given the contract and engaging expediting when it comes to purchased products such as semi-manufactured products, raw materials, maintenance, components, supplementary materials, capital equipment/investment, finished products/trade items, repair and operating materials (MRO items) and services.

With rising industrial output and consumption, resource scarcity, and cheap labor, among other things, global sourcing from overseas manufacturers has become necessary in the corporate sector (Commonwealth of Australia,

2018). In order for businesses to be successful in delivering customer, societal, and shareholder value, procurement must play a strategic role based on three pillars: the environment, the social, and the economy (Agyei et al., 2021). There is a paucity of literature on how Ghana's cocoa procurement and quality assurance processes are studied. The cocoa industry, on the other hand, makes a significant contribution to Ghana's economy. With a market share of almost 20%, it is the world's second largest cocoa producer after Cote D'ivoire (Bangmarigu & Qineti, 2018). Ghana is well-known in the worldwide market for its high-quality cocoa beans. The cocoa industry employs 794,129 households who grow cocoa in ecological zones (Ghana Public Procurement E-Bulletin, 2019). The Ghana Cocoa Board is the regulator and markets or trades cocoa beans to local and international markets through the Cocoa Marketing Company, a subsidiary. COCOBOD is viewed as a cocoa provider in this light. They obtain farm inputs, pesticides, and fertilizers from vendors and distribute them to farmers for free or at a reduced cost for cocoa production. COCOBOD operations obligate them to take responsibility for long-term sustainability. In light of this, the purpose of this study is to look into the cocoa procurement and quality assurance processes in Ghana.

2. PROCUREMENT PROCESS

A process, according to Lysons et al. (2006), is a collection of subprocesses or steps aimed at producing a specific result. As a result, the procurement process in Ghana is a cycle or chain that depicts the activities involved in attaining a certain demand for operational or strategic purposes. According to Arjan (2010), the procurement process is divided into six parts. The stages are specification definition, contract agreement, supplier selection, expediting, ordering, and overall process evaluation. Though, some academics, such as (Rozemeijer, 2008), disagreed. They differentiate three purchase circumstances, the first of which is the new-task state: This predicament arises once a company chooses to purchase a brand new product from an unidentified provider. Because the product specs must still be mapped, this transaction type is marked by a high degree of risk and uncertainty.

The second option is a modified repurchase: This is when an organization wishes to purchase a present product from a new supplier, or a fresh product from a recognized supplier, and it usually occurs once the current provider is dissatisfied, or once better substitutes for present products become accessible. Finally, there's the direct rebuy, which is the most usual scenario and comprises purchasing a known product from a known seller. According to Emmanuel and Arowoshegbe (2016), the procurement process has 10 phases, from identification of need to respective procurement payment. The reason for this is that many businesses may elect to combine several phases in order to cut lead times. For the most part, Emmanuel and Arowoshegbe (2016) used the typical procurement model.

The procurement model represents the many procedures and stages that a procurement activity goes through in order to meet operational needs. It outlines the steps that must be completed before moving on to the next level. Need identification, specification, sourcing, enquiring, evaluating, negotiating, ordering, progress, delivery, payment, and review are the stages. The Cabinet Office (2006) defines procurement as "the real portions of the commissioning cycle with a focus on the process of buying services, beginning with first advertisement and ending with contract management." The general purchasing (sourced) process is divided into four parts, according to Foerstl et al (2010). This procedure must first be identified and conveyed. Supplier selection, order placement, and transaction management are all completed before performance is evaluated and a suitable connection is established.

They claimed that depending on what an organization is purchasing, the particular steps in the actual process vary. Services are handled differently than raw commodities, and MRO items are handled differently than high-tech components. This form depicted the sourcing process diagrammatically.

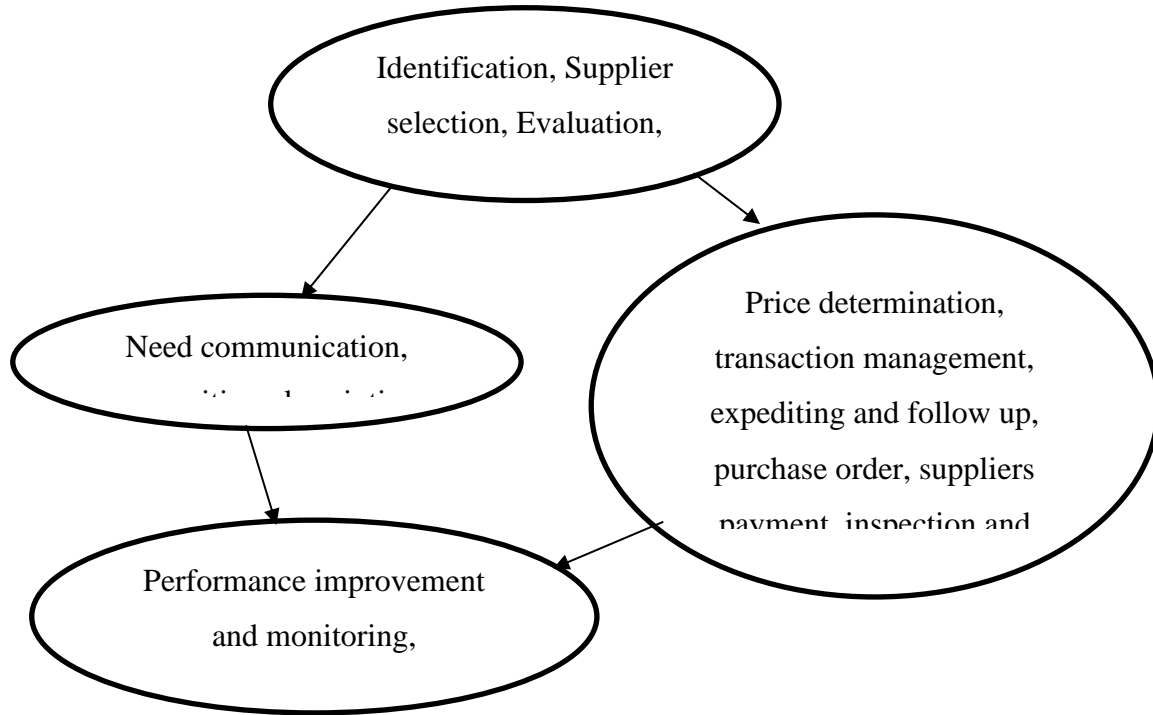


Figure 1: The Sourcing Process

3. PROCUREMENT MODE IN GHANA

Part 4 of the public procurement (Amendment) Act, 2016 (Act 914), clearly scores Ghana's procurement practices. It cites the following as some of the procurement techniques and usage criteria.

3.1 The Competitive Tendering (Public Procurement (Amendment) Act, 2016 (Act 914), section 35)

It's vital to note that section 35 of the Public Procurement (Amendment) Act, 2016 (Act 914), and its regulations encourage competitive tendering usage for standard high-value products, services, and works. The Public Procurement (Amendment) Act of 2016 (Act 914) permits the use of two different types of competitive tendering:

3.1.1 Global competitive tendering

When competitive open tendering is employed and adequate competition cannot be gotten without inviting foreign enterprises to tender, this is used (s. 45).

3.1.2 NATIONAL COMPETITIVE TENDERING (NCT)

This is used when a procurement entity decides to accept tenders from just locally registered suppliers, contractors, or consultants, regardless of nationality, unless the procurement entity decides to limit it to domestic suppliers, contractors, or consultants (s.44).

3.1.3 TWO – STAGE TENDERING (PUBLIC PROCUREMENT (AMENDMENT) ACT, 2016 (ACT 914), SECTION 36)

A procurement order uses two-stage tendering when: a. it is not possible for the procurement entity to make full specifications for the works or goods, or to classify their features in services' case, and it pursues proposals, tenders, or offers on numerous means of achieving its needs to get the most suitable procurement needs solution; or when the works' or goods' character is subject to fast technological advancement.

b. Where the entity of procurement intends to go in a contract for experimentation, research, development, or study, unless the contract involves commodities production in substantial numbers to institute viability of commercial or to recoup R&D costs.

Two-stage open tendering, according to John, Richard, and Amita (2002), combines characteristics of open and selected tendering. The tender is initially open, but if the specifications are excessively strict, no submissions may satisfy them, or if they do, the price offered may be unsatisfactory. In that case, the procurement requirements may be reduced back, and a select group of tenderers may be requested to resubmit offers in light of the new specifications.

3.1.4 RESTRICTED TENDERING (PUBLIC PROCUREMENT (AMENDMENT) ACT, 2016 (ACT 914), SECTION 38)

Organizing the entire tendering procedure can be time-consuming and inconvenient at times. This encourages procuring entities to employ a streamlined approach when the contract value is so low that the administrative effort associated with the tendering procedure is minimal. For the sake of economy and efficiency, and with Board agreement, a procurement organization may employ limited tendering:

- a. If services, works, or goods are only obtainable from a small number of contractors or vendors due to their extremely complicated and specialized nature.
- b. If the cost and time of evaluating and examining many tenders is disproportionate to the services', works', and products' value to be bought; or
- c. If an offer for competitive tendering is not responded to after publication.

4. GHANA’S PROCUREMENT CYCLE

The procurement cycle gives required activities’ guide at all phase of the procurement process or function. It also indicates the direction of the procurement process. For efficient and effective monitoring and evaluation of procurement process, the procurement cycle provides a road map. The procurement cycle for goods in Ghana is given below

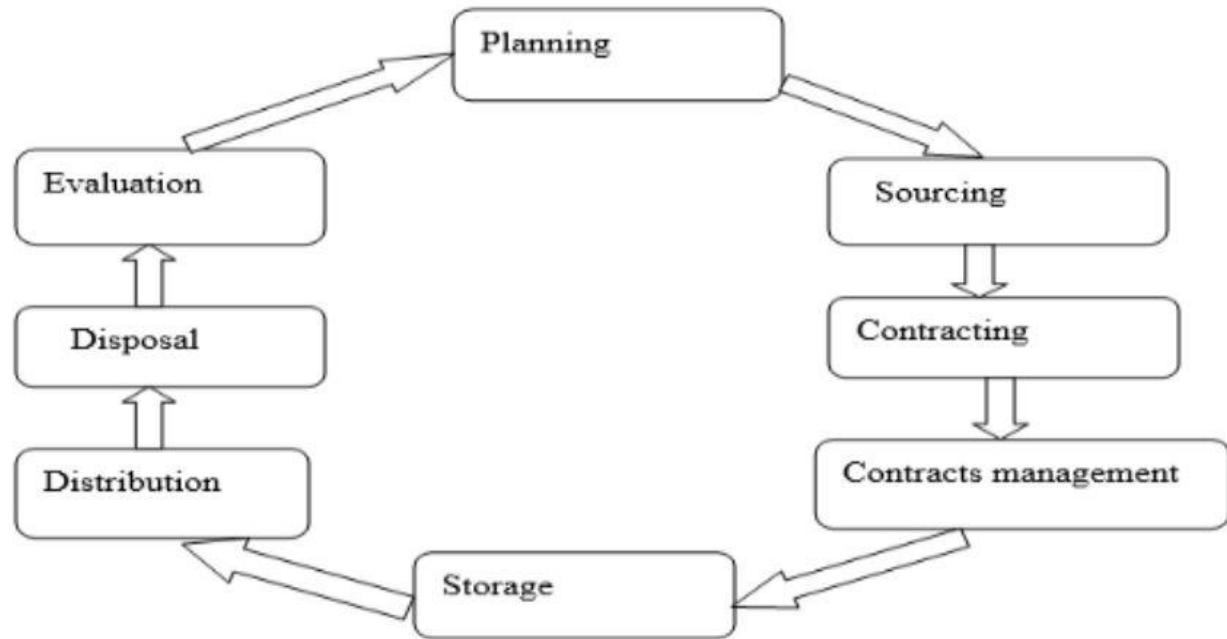


Figure 2: The Procurement Cycle for Goods

Source: Public Procurement (Amendment) Act, 2016 (Act 914)

4.1 PROCUREMENT PLANNING

The process of assessing your past, present, and forecasting into the future is known as planning. At this point, you should request that the various units bring their requirements. It considers the company's mission, vision, and goals. Human resource, equipment, and material requirements are all considered during planning. This should not be done by a single person because it is extensive. Planning will help you avoid having to buy anything on the spur of the moment. Procurement planning, according to Project Management Knowledge Body of Project Management

Institute, is the method of determining whether organizational requirements can be addressed by purchasing services or products from outside the company. Choosing whether to procure, what to procure, how to procure, when to procure, and how much to procure are all part of this process. The procurement planning activity is precisely defined in Part 3 Section 21 of the Public Procurement (Amendment) Act, 2016 (Act 914), which states:

- description of contract packages or lots,
- each package's projected cost,
- the needed procurement process endorsements and
- Processing times and steps.

4.2 SOURCING

The term "source" has grown increasingly prevalent in the materials industry. This task entails determining the best supplier approach for a specific product or commodity group. A strategy sourcing describes how numerous suppliers the business favours for that category or commodity, what relationship type to follow and what contract type to discuss for (1 year to multiyear). It concerns discovering best possible supplier for the business on a global basis (Arjan 2010). Potential suppliers' pre-qualification, tender documents' issue and preparation, request for proposals or quotations, successful tenderers' selection, and examination of answers are all undertakings that happen in procurement cycle's sourcing phase. The process of obtaining bids or proposals and applying evaluation criteria to choose a supplier is known as source selection. According to Murray (2009), the initial level of member involvement in most strategic procurements has usually been supplier selection and/or contract award, and even that involvement was typically for little more than accepting an officer suggestion. Tendering methods are used in Ghana to procure products, works, and services, as outlined in Part 5, Sections 44–65 of the Public Procurement (Amendment) Act, 2016 (Act 914).

4.3 CONTRACTING

A formal contract document is signed, drawn up, and centered on the conditions and terms agreed upon by both parties. Contracting for simpler necessities might consist of a call-off order under an existing contract, or if contracts of framework exist, contracting might contain a purchase order. It's vital to note that award notice and communication channels are required during the contractual stage.

4.4 CONTRACT MANAGEMENT

Contract manager selection, assignment of roles and benchmarks of performance, expediting, communication channels, contract amendment, and dispute resolution are all crucial actions to consider during contract management. Contracts for works, instead, might need technical engineer supervision, but contracts for advisory services, such as training, technical advice, or feasibility studies, frequently involve direct participation of the buyer or client organization. Both the procurement entity and the supplier are expected to follow through on their contractual obligations. In fact, contract management should have the following goals:

- a. Ensure that the output is met. That is, to make certain that the deliverables are met.
- b. Contract administration should be implemented as a type of monitoring, with site visit meetings to discuss issues.
- c. Establishing a long-term relationship management strategy.

4.5 Storage

This is a procurement cycle in which non-immediately used products are stored to avoid damage or loss. The availability of goods at the proper moment is crucial to the organization's operations. There are some commodities that necessitate particular storage or have a short shelf life. On the goods, there should be sufficient paperwork. Goods must be recorded in the ledger charge, as well as bin cards.

4.6 Distributions

Available and storage facilities will be included in distribution, which will help to accelerate the delivery of works, services, and goods. Goods that have been stored must be delivered to the final destination for which they were purchased. It may also be necessary to respond to changing consumer demands and carry commodities via tough terrain and terrain with inadequate infrastructure.

4.7 Disposal (stores, vehicles, plants and equipment)

Depending on the nature of the good and its state, the product must be deemed outdated, unserviceable, or surplus stock for disposal. Burying (non-harmful items), burning, swapping or transferring, and auctioning are some of the options for disposal.

4.8 Evaluation

This is about evaluating your work by comparing it to best practices. Reviewing procurement function performance, assessing compliance, efficiency, and effectiveness, and conducting procurement audits are all part of this step. There is a need to discover flaws and faults in order to take corrective action, and this might comprise a formal audit of procurement. A formal audit of procurement is conducted to provide management assurance and to determine whether or not objectives have been met. It identifies flaws, ensures compliance with the Public Procurement (Amendment) Act, 2016 (Act 914), checks to see if regulations are being followed, and aids in the detection of anomalies, corruption, and fraud. A formal audit can likewise aid in performance improvement and monitoring, as well as regulations' and rules' enforcement, as well as the prosecution of individuals found guilty of violating the Act.

5. METHODOLOGY

The data for the study came from a primary source. Through the use of questionnaires and surveys, primary data was collected directly from respondents. The main data offered credible and accurate first-hand information pertinent to this study about the role procurement plays in the Ghana Cocoa Board's quality management and other challenges. This research took the form of a cross-sectional survey, which entailed polling a large number of people over a short period of time using a questionnaire. The quantitative method was used in the research. COCOBOD authorities, Produce Buying Companies (PBCs), and Licensed Buying Companies (LBCs) each received a questionnaire. Quantitative data was collected from participants using a self-administered questionnaire. The questionnaire was designed in such a way that the researchers could cover all of the research questions with ease. A sample size of one hundred and twenty (120) participants was chosen, and respondents for the study were chosen using probability sampling. This included twenty (20) members of management, twenty (20) members of procurement, ten (10) members of the shops department, thirty (30) members of the General Services Department's works and services personnel, and twenty (40) members of PBCs and LBCs. The questions on the questionnaire were all closed-ended. Some responses in this study were likert-type items on a 1 to 5 scale with ends like "strongly agree to strongly disagree" and "extremely awful to very good." The questioning centered on Ghana's cocoa procurement and quality assurance processes. The data was analyzed and displayed in tables using the Statistical Package for Social Sciences version 26.0 (SPSS 26.0).

5.1 RESULTS

Descriptive analysis was done for cocoa procurement process and quality assurance process. Table 1 presents the results of the descriptive statistics (i.e., mean and standard deviation) of cocoa procurement process rating statements and the overall mean. The mean score on the statement provides a meaningful basis for comparing and describing the significance of cocoa procurement process. From Table 1 the cocoa procurement process statements that the participants agreed with most (i.e. items with the top highest means) in the instrument were;

- On a worldwide scale, the procurement process identifies the best possible supplier for the company.
- The procurement process eliminates the need to purchase something on the spur of the moment.
- The procurement process displays the steps taken to meet a specific need for operational or strategic reasons.
- The procurement procedure takes into account the company's mission, vision, and objectives.
- The procurement procedure boosts efficiency.

The ratings in Table 1 therefore suggest that on a worldwide scale, the procurement process identifies the best possible supplier for the company. The procurement process eliminates the need to purchase something on the spur of the moment. The procurement process displays the steps taken to meet a specific need for operational or strategic reasons. The procurement procedure takes into account the company's mission, vision, and objectives. The procurement procedure boosts efficiency. Similarly, the procurement process statements that the participants disagreed with most (i.e. items with the bottom lowest means) in the instrument were;

- Corruption is avoided through the procurement process.
- For a certain product or commodity category, the procurement process finds the optimum supplier method.
- The procurement process safeguards the company's reputation.

These implied the participants disagreed that corruption is avoided through the procurement process. Also, for a certain product or commodity category, the procurement process finds the optimum supplier method. Lastly, the procurement process safeguards the company's reputation.

Table 1: Descriptive Statistics for significance of cocoa procurement process			
	N	Mean	Std. Deviation
On a worldwide scale, the procurement process identifies the best possible supplier for the company.	120	3.94	1.23659
The procurement process eliminates the need to purchase something on the spur of the moment.	120	3.50	1.09545
The procurement process displays the steps taken to meet a specific need for operational or strategic reasons.	120	3.31	.87321
The procurement procedure takes into account the company's mission, vision, and objectives.	120	2.94	1.28938
The procurement procedure boosts efficiency.	120	2.75	.77460
The procurement process evaluates the company's history, current, and future projections.	120	2.75	1.00000
Competitive tendering is encouraged by the procurement process.	120	2.56	1.03078
Procurement is used to keep tabs on spending.	120	2.50	1.03280
Corruption is avoided through the procurement process.	120	2.00	.63246
For a certain product or commodity category, the procurement process finds the optimum supplier method.	120	2.00	.89443
The procurement process safeguards the company's reputation.	120	1.56	.51235
Overall Score		2.71	

Table 2 presents the results of the descriptive statistics (i.e., mean and standard deviation) of quality assurance process rating statements and the overall mean. The mean score on the statement provides a meaningful basis for comparing and describing the significance of quality assurance process. From Table 2 the quality assurance process statements that the participants agreed with most (i.e. items with the top highest means) in the instrument were;

- Employee morale improves as a result of quality assurance.
- Everyone has a clear understanding of what is expected of them.
- Quality assurance allows you to save time.
- Quality control is beneficial to a company's reputation.
- Quality control helps you save money.

The ratings in Table 2 therefore suggest that employee morale improves as a result of quality assurance. Everyone has a clear understanding of what is expected of them. Quality assurance allows you to save time. Quality control is beneficial to a company's reputation. Quality control helps you save money. Similarly, the quality assurance process statements that the participants disagreed with most (i.e. items with the bottom lowest means) in the instrument were;

- Customer confidence is boosted by quality assurance.
- The foundation of a company's work culture is quality assurance.
- More long-term benefit comes from quality assurance.

These implied the participants disagreed that customer confidence is boosted by quality assurance, the foundation of a company's work culture is quality assurance, and more long-term benefit comes from quality assurance.

Table 2: Descriptive Statistics for significance of quality assurance process			
	N	Mean	Std. Deviation
Employee morale improves as a result of quality assurance.	120	3.81	1.42449
Everyone has a clear understanding of what is expected of them.	120	3.19	1.42449
Quality assurance allows you to save time.	120	2.94	.92871
Quality control is beneficial to a company's reputation.	120	2.69	.79320
Quality control helps you save money.	120	2.63	1.31022
Consistent results are ensured by quality assurance.	120	2.56	.96393
Quality assurance guarantees that products and services continue to improve.	120	2.50	.81650
Customer confidence is boosted by quality assurance.	120	1.81	.40311
The foundation of a company's work culture is quality assurance.	120	1.81	.75000
More long-term benefit comes from quality assurance.	120	1.50	.51640
Overall Score		2.54	

5.2 FINDINGS

- The procurement process identifies the best possible supplier for the company. However, without this well defined procurement process, the best possible COCOBOD provider may not be discovered.
- The procurement process eliminates the need to purchase something on the spur of the moment. The need to purchase anything on the spur of the moment will be high if there is no clearly defined procurement process.
- The study revealed the procurement process displays the steps taken to meet a specific need for operational or strategic reasons.
- The procurement procedure takes into account the company's mission, vision, and objectives. COCOBOD's attempt to achieve agricultural sustainability, based on Bezan and Slawecki's (2002) "Three Circle Model," is more concerned with "CARING" (Environment/Society Intersect) than "SHARING" (Economy/Society Intersect) or "PARING" (Economy/Environment). COCOBOD's corporate social responsibility programs, welfare and health interventions for farmers and workers, and collaboration with the African Development Bank (AfDB), the United Nations Development Programme (UNDP), and the Mondelez International Cocoa Life Programme on sustainable cocoa production demonstrate this.
- The study found out that, the COCOBOD procurement procedure boosts efficiency. When it comes to monitoring and evaluating suppliers' sustainability through periodic visits, such an outfit will be critical. If recognized as key or even new suppliers, such an organization can collaborate with them in the areas of sustainability, training and development. Because the majority of enterprises' input materials for production are likely to come from others, Tate et al (2012) suggested that a real measure of a firm's sustainability performance should be looked at from their suppliers and how they select them.
- The study revealed that, corruption is avoided through the procurement process. This is because COCOBOD adheres to the method at all stages of the cocoa production and supply chain.
- It was revealed by the study that, for a certain product or commodity category, the procurement process finds the optimum supplier method. COCOBOD's business strategy, in which most farm inputs, seedlings, chemicals, fertilizers, and other items needed by farmers are provided for free or at a reduced cost in cocoa production, positions COCOBOD to assure sustainable agricultural practices. For example, COCOBOD subsidiaries such as the Cocoa Health and Extension Department educate farmers on best farming practices, the Cocoa Research Institute of Ghana approves chemicals and fertilizers for use on cocoa farms based on research findings, and the Quality Control Division oversees quality control).
- The study revealed that, the procurement process safeguards the company's reputation.
- In considering quality assurance for pushing the agenda for sustainable procurement by researchers, the perspective of COCOBOD is not much different, as it identified the critical ones as local and international regulations, stakeholder pressure, concern for natural resource (natural) deterioration and corporate reputation. Quality assurance allows COCOBOD save time. Quality control is beneficial to a COCOBOD's reputation. Quality control helps COCOBOD save money.

6. CONCLUSION

On a worldwide scale, the procurement process identifies the best possible supplier for the company. The procurement process eliminates the need to purchase something on the spur of the moment. The procurement process displays the steps taken to meet a specific need for operational or strategic reasons. The procurement procedure takes into account the company's mission, vision, and objectives. The procurement procedure boosts efficiency. Participants disagreed that corruption is avoided through the procurement process. Also, for a certain product or commodity category, the procurement process finds the optimum supplier method. Lastly, the procurement process safeguards the company's reputation. Employee morale improves as a result of quality assurance. Everyone has a clear understanding of what is expected of them. Quality assurance allows you to save time. Quality control is beneficial to a company's reputation. Quality control helps you save money. Participants disagreed that customer confidence is boosted by quality assurance, the foundation of a company's work culture is quality assurance, and more long-term benefit comes from quality assurance.

7. RECOMMENDATIONS

In the light of the findings and discussions from the study, the following recommendations were proposed for consideration and implementation towards sustainable procurement.

- It is recommended that, COCOBOD use procurements process to reduce corruption.
- It is recommended that, COCOBOD use the procurement process to eliminate the need to purchase something on the spur of the moment.
- It is recommended that, COCOBOD use procurement procedure to boost efficiency.
- It is recommended that, COCOBOD use quality assurance to save time, to save money, and to boost customer confidence.
- Future studies focus on the impact of procurement process on the rate of corruption in government major institutions. Also, on the confidence of customers. Different respondent demographics should be considered by future studies.

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