

## RESEARCH ARTICLE



# The Dilemma of Sustainable Procurement: An Exploration of Challenges in the Context of Multi-theoretical Perspective

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**Abstract:** Sustainable procurement adoption is slow in many developing countries. Apart from the general need for exploring the issue from a qualitative perspective, there are specific calls to address the challenges leading to slow adoption of sustainable procurement in developing countries. This study explores the challenges of sustainable procurement from a qualitative perspective in the context of principal-agent and stakeholder theories. A qualitative approach is adopted to interview 20 personnel along the supply chain of two teaching hospitals in Ghana and 4 officials from 3 regulatory institutions. Interviewees are selected with the use of snowballing and purposive sampling techniques. Results indicate five challenges of SP including economic, political, bureaucratic, legal, and technical challenges with thirteen sub-challenges. Further exploration finds that the combined effects of ill-fated interests from sections of stakeholders and malfunctioned principal-agent relations contribute to narrowing the gates for adopting sustainability procurement. The multifaceted nature of the challenges demands that any attempt to address them must be multifaceted as well. Again, because an organization's quest to maintain good relations with certain stakeholders, like customers, suppliers, and workers, may lead the former to a dysfunctional behavior such as procuring unsustainably, the study recommends that decision-makers be adequately skilled to be able to identify stakeholders with good intent from those with bad intent. They should also be well-resourced and be trained on how to refuse ill-fated demands from ill-fated stakeholders. While the study illustrates some novel challenges of sustainable procurement, such as logging and breaking of bulks, it also gives a clear explanation of how several known solitary challenges such as the individual political challenges combine to affect sustainable procurement. The study provides explanations on how stakeholders and principal-agency relations can sometimes malfunction against sustainable procurement adoption.

**Keywords:** challenges, Komfo Anokye Teaching Hospital, Korle-Bu Teaching Hospital, principal-agent theory, sustainability, sustainable procurement, stakeholders theory

## 1. Introduction

Procurement is defined by Hinrichs-Krapels et al. [1] as “the process encompassing all activities associated with acquiring and managing the organization's supply inputs” and supply chain management (SCM) as “the subset of procurement activities concerned particularly with the monitoring, management, and development of ongoing supplier relationships and the associated flow of supply inputs” (p. 22). A study conducted by Schulze et al. [2] on an initial 120 (later trimmed to 88) items relating to procurement and SCM activities indicated a significant amount of “relabeling” occurring in procurement and SCM education such that “what was purchasing is now SCM”. Without downplaying other perspectives, this study adopts the re-labelers definition for procurement and SCM. Growing concerns of dangers of human activities to the global environment led to the birth of sustainable procurement (SP) in the 1980s [3–6]. Since then, attempts to define the subject matter of buying sustainable have led to

different scholars and bodies coming out with related concepts of SP. Though not exhaustive, some of these concepts are green public procurement, green SCM, closed-loop supply, and eco-procurement [6–9]. In a broader sense, SP as a concept takes into account social, economic, and environmental impacts in buying choices [10, 11]. Social considerations may include compatibility with existing social norms, social relations, and social contracts, among others. The economic aspect of sustainability assumes economic resources are limited and must be rationalized while environmental concerns call for protecting the physical environment through procurement decisions.

As a subject with a relatively long-standing history and much interest, implementation is expected to have taken smooth ground as of now. Nevertheless, research evidence indicates that adoption and practice are slow and below expectation, except for some few countries labeled as leaders in sustainability adoption [12]. In Japan, 95% of products purchased by the central government and some designated agencies met sustainable standards as far back as 2007 [13]. This followed the passing of a law on SP in 2001. In Korea, legislation promoting environmentally preferred products was passed in 2004 [14]. Following this, procurement for sustainable products by public institutions increased to about 80%

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by 2010. However, adoption and practice in developing countries in Asia and Africa have either been slow or non-existent. Assessments have indicated for instance that the adoption of SP in Colombia [15], Kenya [16], Zimbabwe [17], and Ghana [18] is far below policy plans, as a result of certain factors and challenges. While there are many studies assessing factors influencing adoption of SP [6, 19–21] and other parts of the world [22–25] across the globe, the focus of most of the studies leads to identifying double-edged factors serving as inhibitors (challenges) or facilitators (drivers) simultaneously. Knowledge and expertise for instance is both a challenge and driver [26, 27]. Similarly, cost [26, 28], synergy among stakeholders [27, 28], leadership influence, environmental culture, public influence [29], and other factors have resulted in similar situation.

The slippery nature of issues with double-edged explanations and their tendency of bereaving academic discourse of exact challenges or drivers of SP have led to the call for studies to focus on specific challenges of SP especially in the health sector [30]. Besides, the identified studies had often used quantitative approaches without consideration to the assertion that new subjects are better synthesized using qualitative methods. To fill this gap, the objectives of the study were to investigate the challenges of SP practice in the public health sector of Ghana and explain how distorted principal-agent relationships and dysfunctional stakeholder interests affect the adoption of SP. This work aims to contribute significantly to the literature by advancing the theoretical understanding of SP, with a departure from traditional views of sustainability. Through a multi-stakeholder analysis, the study identifies comprehensive and relevant challenges to implementing SP in the context of Ghana's health sector. Further, the study can help uncover potential hurdles to achieving sustainable development goals (SDGs), specifically, goal 12 target 7. In addition, the application of the multi-theory perspective provides a comprehensive understanding of the issues that arise in business relationships, identifies the interests of various stakeholders, and promotes cooperation by aligning these interests. Finally, it offers insight into resolving conflicts and improving decision-making processes by considering the diverse perspectives of stakeholders.

The remaining of this paper is structured into Section 2: Literature Review, Section 3: Data and Methodology, Section 4: Results and Discussion, and Section 5: Conclusions.

## 2. Literature Review

### 2.1. Theoretical framework

Principal-agent theory (PAT), stakeholder theory (ST), and institutional theory (IT) were used to explain the challenges of SP. PAT was first explained by Alchian and Demsetz [31] and further developed by Jensen and Meckling [32]. It sees the relationship between owners of organizations and managers as that of principal and agent relationship where owners are principals and managers agents. Principal agent relationship exists when a principal delegates an agent [33] to perform a task on his/her behavior. The fundamental assumptions underlying PAT are the existence of potential goal conflicts; goals determining interest and action of parties; the existence of information asymmetry; and agents being risk-averse [34]. The theory was adopted for the study based on the assumption of procurement teams playing agents' role for the government or the state. Subsequently, it was used to explain how challenges of SP arise as a result of issues with principal-agent assumptions and challenges [35].

ST was by Freeman in 1984 to challenge the assumption of managerial capitalism of managers being responsible to only

stockholders [36]. ST argues that managers should instead have a duty toward a wider network of actors (called stakeholders) including even customers and the community. According to Freeman et al. [37], a good relationship between organization and its stakeholders makes the former effective, performs better, and survives longer. The theory has been used to examine relationships between organizations and their environments and how these relationships influence the conduct of the activities of organizations [38]. In applying ST, the extent to which interests and actions of various stakeholders served as a challenge in decisions to procure sustainably was analyzed and explained. Specifically, it was used to determine how safeguarding stakeholders' interests prevent management from SP.

Institutionalism is one of the most variant theories in academia. The term means different things to different scholars, to the extent that some of the alternative approaches may provide not only different views but even contradictory explanations [39]. The basic argument for the various explanations to IT is that institutions have effects on the behavior of individuals and groups. Peters [40] described IT as a "more or less central conception of institutions acting rather autonomously in making policy (p. 13) decisions" and also "closely connected with the environment and respond to the legitimate pressures coming from outside" (p. 14). According to the author, institutions are also conceptualized in IT as rules. In this case, institutions become the rules, regulations, and laws in society. In this study, the focus (purpose) for using IT is (derived from) therefore placed on how institutions act to influence policy, decisions, and behavior concerning SP.

The theory was used to explain how institutions outside the firms of study (in this case KATH & KBTH) exert pressure on the hospitals to act sustainably or otherwise. The study explained the nature of this pressure and how it drives the adoption of SP principles, or otherwise, in the hospital setting. The study also identified the exact institutions that exert this pressure on health institutions to use sustainable methods in procurement.

### 2.2. Concept of sustainability

The concept of sustainability as introduced is an extension of the original concept "green". The sustainability aspect incorporates greening plus other concepts that are economically, socially, or culturally related. History of SP is traced to 1980s [41–43] due to growing concerns of the dangers of human activities on the global environment [27]. Since then, attempts to define its scope led to different scholars, professional bodies, and organizations coming out with many related concepts of SP [11]. In 1987, Brundtland Commission introduced the concept of sustainable development [44]. By 1991, constant developments led to emergence of sustainable/green production and sustainable/green consumption. The two emerging concepts were incorporated into national policies and plans of some European countries including the Netherlands and Denmark. During the 1992 Earth Summit, SP was officially added to the principles for ensuring sustainable production and consumption at the Rio Declaration [45, 46]. The purpose was to eliminate unsustainable patterns of production and consumption.

Scholarship uses a variety of terms and concepts to denote SP. Apart from green procurement/purchasing, the SP has also been referred to as green public procurement, green SCM, closed-loop supply, eco-procurement, environmentally friendly purchasing, environmentally responsible procurement, etc. [25].

Sustainability is just an extension of the concept "green". SP is thus an all-incorporated concept including green procurement. SP has been described by some scholars as referring to that

government or public sector procurement process which integrates a concern for broader social and environmental impacts [47]. According to Mutangili [48], “SP means taking into account economic, environmental, and social impacts in buying choices”. For procurement to be sustainable, it must go beyond ensuring environmental sustainability to cover social and economic considerations. Social considerations may include looking at the compatibility of the procurement with existing social norms, social relations, social contracts, etc., as well as whether it can destabilize such relations. Sustainability will want to have the optimum benefit from these relations. Economically, sustainability assumes economic resources are limited and must thus be rationalized. It thus ensures value for money by buying the best quality of goods and services at the lowest possible price. As a result, SP can best be described as a concept for optimizing price, quality, availability of a product, and further reducing or eliminating environmental life cycle as well as social impacts linked to a product itself or traced to its origin. From the review of scholarship, we consider, SP as that kind of procurement driven by the highest ethical standards and pays attention to changing technology in order to acquire goods, services, and works whose lifecycle have no or comparatively low environmental, social, and economic effects and as well pose a minimal technical challenge to use.

### 2.3. Concept of procurement

A deep synthesis of theoretical and empirical evidence led–to Hinrichs-Krapels et al. [1] defining procurement as

... the process encompassing all activities associated with acquiring and managing the organisation’s supply inputs (p. 22)

In terms of SCM, the authors defined it as:

... the subset of procurement activities concerned particularly with the monitoring, management and development of on-going supplier relationships and the associated flows of supply inputs (p. 22).

It is realized that perhaps the literature on procurement and SCM is among the most complicated issues in academia [49–51] with haphazard, obfuscating, and conflicting definitions, explanations, and meanings and very blurred relationships established between the two. While some definitions share references to the coordinated management of both an organization’s upstream and downstream relationships, others focus on the integrated management of only upstream relationships [1, 2]. Again, while some definitions consider one (either of them) as a subset of the other on different occasions, others consider each of them as involving independent separate functions that intersect and interact at a certain point.

### 2.4. Empirical review of factors and challenges of SP

The integration of SP practices into national policies and plans has become increasingly prevalent across European countries, with a growing interest in understanding the factors influencing the spread of such initiatives globally, particularly in regions like Africa. Recent studies have highlighted key factors affecting SP adoption, with a focus on factors such as knowledge and expertise, cost considerations, stakeholder synergy, leadership influence, environmental culture, and public awareness. For instance, in Ghana, research has identified 18 factors influencing SP practice, with an emphasis on the role of knowledge and expertise, both internally and externally. Studies suggest that a lack of understanding or skills in SP can lead to negative attitudes toward adoption, emphasizing the importance of enhancing professionals’ knowledge through research activities and engagement strategies [26–28].

In addition to knowledge and expertise, awareness of the potential benefits of SP plays a crucial role in driving its adoption, particularly in emerging economies like those in Asia and Africa. Studies have indicated that awareness among management and employees can influence the practice of SP, either through direct implementation [26] or by exerting pressure on decision-makers [52]. However, mere awareness may not always lead to adoption, as individual attitudes and perceptions also play a significant role [53]. Moreover, customer awareness can indirectly impact organizations’ engagement in sustainable practices, either by influencing purchasing decisions or by pressuring companies to adopt environmentally friendly measures [26]. While existing research has predominantly focused on quantitative approaches within specific sectors like mining and manufacturing, there is a call for further exploration using diverse methodologies to assess the universality of these factors across different organizational contexts and sectors.

Legislation and sanctions also play a pivotal role in shaping the adoption of SP practices, with numerous studies highlighting their significance across various geographical contexts [25, 26, 52, 54]. Studies have emphasized that effective legislation, accompanied by operational sanctions, is essential for promoting SP principles within organizations. For instance, studies in Ghana and other regions have shown that the mere existence of SP legislation is insufficient without adequate enforcement mechanisms [26]. In the Ghanaian mining sector, ineffective legislation and lax supervision were found to hinder SP adoption [54], indicating the need for a comprehensive approach to legislative implementation.

Similarly, research has shown that political commitment influences the development and enforcement of SP-related laws, with a lack of governmental support hindering progress in sustainable practices [53, 55]. Political commitment emerges as a key driver influencing the adoption of SP principles, as it shapes decisions regarding legislation, enforcement, and policy dialogue. Empirical evidence suggests that insufficient political commitment leads to gaps in legal frameworks and a lack of support for environmentally friendly policies [55]. In Ghana, for example, successive administrations’ lack of commitment has resulted in inadequate institutional structures to promote sustainability, particularly in public procurement [27]. Lack of political commitment has repercussions across various sectors including, limiting awareness and adoption of sustainable practices among producers and suppliers [55]. Leadership influence is identified as a crucial aspect of political commitment, with leaders playing a significant role in either promoting or hindering SP adoption [29, 56]. However, while existing studies provide valuable insights, there is the need for further research across different sectors and industries to enhance the applicability of findings to inform comprehensive policy approaches.

High costs associated with the procurement and use of sustainable products also pose a significant barrier to SP adoption, particularly in developing countries like Ghana. Studies indicate that both perceived and actual high prices deter organizations from embracing SP practices [28], as there is a prevalent desire for lower costs among buyers and contractors [57–60]. However, while the initial costs may appear prohibitive, SP initiatives often yield long-term benefits such as reduced disposal and liability costs, resource conservation, and enhanced public image [26, 28]. This dual nature of cost, acting both as a facilitator and a barrier to SP adoption, is influenced by firm’s size, with larger enterprises more likely to view SP as cost-efficient compared to small and medium enterprises (SMEs) [61]. Despite existing research highlighting the role of cost in SP adoption, further studies are needed across various sectors and methodologies to

provide a comprehensive understanding of its impact in different contexts.

Environmental culture and public influence emerge as crucial drivers in accelerating the adoption of SP practices, with increasing public awareness putting pressure on organizations to implement sustainable measures [28, 56]. The intertwining of public influence and environmental culture underscores the importance of societal attitudes and behaviors toward sustainability. In societies with a strong environmental culture, the public is educated on environmental sustainability, influencing organizational practices and policies. Moreover, the internalization of environmental rules and standards can lead to intrinsic environmental friendliness, reducing the reliance on external enforcement mechanisms such as legislation [62]. Establishing common environmental management standards and involving various stakeholders such as environmental protection agencies and procurement officers are essential steps in fostering an environmental culture conducive to SP implementation.

The adoption of SP practices is influenced by synergy among stakeholders and training of procurement officials. Research suggests that SP is best achieved through a strong synergy and operational links among organizations, departments, and countries [29, 63]. This synergy can be both internal, within an organization, where departments collaborate, and external, where organizations work together [29]. For example, the procurement department can involve other departments, such as research and technical departments, in procurement decisions. Similarly, external synergy can involve officials from environmental agencies providing training to organizations on SP issues [63].

Training is another crucial factor in driving the adoption of SP [63, 64]. It aims to raise awareness about SP and teach approaches for SP with significant implications at the managerial level [64]. Training can be provided in collaboration with purchasing organizations, national or international institutions established to protect the environment, and international organizations like the United Nations [65]. The importance of training lies in helping practitioners understand the complex requirements of SP, which are often considered as unnecessary bureaucratic red tape [64]. Constant and rigorous training is necessary to provide the knowledge required to implement sustainable standards effectively [64, 65].

Many other important factors have been identified as significant influencers of SP adoption. These encompass reliance on traditional procurement practices, management support, business activity volume, limited supply sources, cumbersome regulations, and priority setting [63, 66]. Despite the global push for SP adoption since the 1980s, some entities in Ghana still cling to the conventional procurement methods due to the inherent limitations and the complexities associated with SP [27, 67]. This reluctance might stem from organizational inertia, exacerbated by inadequate synergy among sectors and within organizations. Moreover, the extent of managerial commitment is pivotal, as lack of support often leads to neglect of sustainable practices, highlighting the interconnectedness of managerial commitment with other factors [68].

Additionally, factors such as low industrial activity volume, restricted supply sources, and complex regulations pose challenges to SP adoption [28, 52]. SMEs in developing countries particularly struggle with the initial high costs of sustainable practices, hindering adoption [52, 69]. The availability of supplies and the presence of substitutes also play crucial roles, with abundant options enabling buyers to prioritize sustainability standards, whereas limited options might force compromise [67]. These multifaceted challenges underscore the need for comprehensive strategies and supportive management to navigate the complexities of SP adoption effectively.

### 3. Research Methodology

#### 3.1. Research design

The study adopted a qualitative approach by using stories to explain events and phenomena [70]. The decision to use a qualitative method is based on the strength of the approach in giving better knowledge and understanding of a problem [71], especially when investigating new phenomena like SP. The approach was adopted due to its deeper meaning of the subject matter and understanding of how people's values affect their knowledge of the challenges of SP. The strengths of the approach are the opportunity for an in-depth exploration of the issues and provision of rich, detailed data and valuable insights into people's experiences, feelings, and behaviors toward SP [72].

#### 3.2. Participants

The targeted population comprised of the director(s) of health administration for Komfo Anokye and Kurle-Bu Teaching Hospitals, heads of pharmacy department, heads of procurement and supply chain unit, heads of store, and heads of account. Besides, members of the Entity Tender Committee (ETC) for each hospital were included. Again, personnel from 3 regulatory institutions (Ghana Health Service, Public Procurement Authority, and Ghana Standard Authority) were targeted/included. Together, 24 respondents took part in the in-depth interviews. The respondents were selected purposively in line with strengths outlined in literature [73]. The method helped to sample specific participants with specific knowledge in procurement processes that were needed for interviewing. The use of any other technique could have sampled possible participants without needed knowledge in the subject under study. The instrument was tested at Cape Coast Teaching Hospital using 5 respondents. The pretest was critical in reviewing and expanding the data collection instrument by adding more questions deemed to be important and restructuring to improve the clarity of some questions. Ethical approvals were sought from all appropriate quarters, specifically from the ethical review boards of both hospitals and from the Ethics Committee for Humanities, University of Ghana, before proceeding with the study.

#### 3.3. Instruments

Qualitative interviews were used to synthesize data because interviews have been identified by Schulze et al. [2] as one of the most appropriate tools for collecting data in studies relating to procurement and SCM. The instrument was particularly effective for gathering rich and detailed data with detailed insights into participants' experiences, perspectives, and behaviors on SP, allowing the study to explore a complex and multifaceted phenomena in detail. Additionally, it offered the flexibility of adapting the interview protocol and follow-up questions based on the participants' responses, enabling a more dynamic and responsive data collection process.

#### 3.4. Data analysis

Interviews were analyzed using the relational approach proposed by Dr. John Schulz.<sup>1</sup> Similar to content analysis, the relational analysis identifies themes and key concepts in transcripts and explores relationships that arise from the concepts.

<sup>1</sup>Southampton Education School: Analysing your interviews. <https://www.youtube.com/watch?v=59GsjhPolPs>

**Table 1**  
**Challenges and sub-challenges of SP**

Challenge	Sub-challenge	KATH	KBTH
<b>Economic challenge</b>	High prices	✓	✓
	Formation of cartels	×	✓
	Logging	×	✓
<b>Technical challenges</b>	Lack of technical know-how	✓	✓
	Lack of management support	✓	✓
<b>Inadequate knowledge and training</b>	Inadequate knowledge	✓	✓
	Inadequate training	✓	✓
<b>Political challenges</b>	Pressure from politicians	✓	×
	Pressure from superiors	✓	×
	Pressure from clients	✓	×
<b>Bureaucratic and structural challenges</b>	Rigid system	✓	✓
	Challenges with emergency Procurement	×	✓
<b>Legal challenges</b>	Inadequate legal framework	✓	✓
	Lack of protection for doing SP	×	✓
	Circumventing the legal system by procurers	×	✓

First, transcriptions were put together with field notes. Next, transcripts were broken into useful chunks of data. Codes were provided to the chunks in 3-levels. At level one, as many codes as possible were identified. Secondly, redundant codes were eliminated to make data manageable. Then close coding was done to identify major themes and sub-themes. In step three, ideas making up themes and sub-themes were examined for any interaction through constant comparison of themes and codes before write-up followed.

#### 4. Findings

The study identified thirteen challenges of SP adoption. The challenges together fall under five thematic areas: economic, political, bureaucratic, legal, and technical, which are presented hereafter. Some of the challenges are experienced by one of the health facilities where data were collected and not the other while others are experienced in both hospitals. Table 1 above summarizes the challenges of SP unveiled by the study.

##### 4.1. Economic challenges

The fundamental theme underlying the totality of the economic challenges of SP was an increase in economic cost as a result of actual or attempted SP. Economic challenges manifested in three ways including the higher price of SP, the formation of cartels by suppliers, as well as logging and breaking bulks.

###### 4.1.1. High prices

The cost of sustainable products/procurement was reported to be relatively higher because of the quality and material makeup of inputs. A respondent said

...if somebody is coming with something and you are requiring sustainability, then there is a likelihood of the cost being relatively high (KBTH/R/01).

The high cost of sustainable products is a result of their quality and the materials used in the production of sustainable products. A respondent illustrated.

The quality of the products eventually will determine the cost of it... somebody may bring something that is say GH¢1.00 and another GH¢10.00. But in say one year, you might have used 11 or 20 of the one-credi product because it is inferior, but still have used just one of the GH¢10.00 product (KBTH/R/05).

Another respondent reported

... if you want to go organic, that means you don't want to destroy the environment with pesticides and all those things... organic is very expensive and companies that ensure or uphold the principles of sustainability are confronted with extra cost... So, you are likely to increase [the] cost a bit when going sustainable (KBTH/R/08)

Earlier studies by Ochieng [16] and Sönnichsen and Clement [47] support this assertion. According to Sönnichsen and Clement [47] for instance, relatively higher prices are the most regularly cited barriers to SP with the issue getting complicated by lack of funding [74], restrictions on expenditure, and unwillingness to incur a higher capital cost [75]. Explaining why sustainable products are costly, studies have indicated organic materials as relatively more expensive [76]. An example is the production of energy which Bagher [76] found "is clearly part of the solution to the problem of dwindling fossil-fuel reserves" (p. 57), but the problem with it is the "high costs to ensure efficient operation" (p. 57). Another area resulting in higher cost of SP is the rigor of the processes involved. Procuring teams are expected to conduct laboratory tests, embark on-site visits, and many more other processes. It must be noted however that the higher cost is short-term phenomenon and a façade in the long term [26]. Experience suggests that in the long run, the cost of sustainable products tends to be relatively lower. However, this can only be recognized if detailed Life Cycle Costing is done [77].

A reversal argument by Oruezabala and Rico [78] from France's health sector is that cost complaints of SP seem a guess. This is because the technical nature of sustainability and a subsequent lack of these skills from procuring officials prevent most procuring officers from the benefit of time and/or appropriate knowledge to evaluate the cost associated with SP. This calls for more studies to examine whether the challenge of cost is a façade of reality. Even if it is, the long-term benefits may offset the short-term costs. In the meantime, it is advisable to embark on education to neutralize cost concerns as the most serious obstacle in SP [47].

###### 4.1.2. Logging and breaking bulks

A twin challenge recorded was logging and breaking bulks. Both have to do with management taking advantage of seeking thresholds of approvals of procurement plans from ETC, Chief Executive (CEO), Head of Department, or Public Procurement Authority (PPA). These have to do with means of artificially lowering procurement costs to approve plans at the lowest possible units. With logging, procurement is done differently for each item to be procured instead of integrated procurement. A respondent explained.

when buying... instead of looking at medicine individually, you can log them to say anti-malaria, tablets, injectable, etc., Then we bid for tablets, injectables, and so on. So, you look at it, and the amounts are lower. But if

you were to subject them all to one bidding process, probably the amount would have gone past the minimum unit (KBTH/R/05).

In this situation, the cost of each procurement falls within the threshold to be approved by the CEO or at the department level. The practice increases the overall cost of procurement at the end.

Breaking bulk is similar to logging with seemingly worse consequences. Instead of procuring a single commodity in a large quantity, procurement is divided into smaller quantities to artificially lower the cost of each consignment and procure differently. The purpose is also to make it possible for final approval at the lowest level possible. It was explained this way.

... people break bulk ... They want to buy say 20 units. But let's say the CEO's limit is GH¢100,000, [which will be able to buy only 10]. He can break the 20 into two tens. So, in the end, though he bought the 20, but has broken it into tens to avoid going through the rigorous processes of the PPA ... you will need PPAs approval for certain purchase levels, but if you break bulk ... they have circumvented the system (KBTH/R/05).

#### 4.1.3. Forming cartels

For procurement to be sustainable, it must achieve value for money without compromising quality. Costs components from price, repairs, disposal, fuel, etc., should be as minimal as possible. However, the study indicated suppliers have a way of limiting or daubing this aspect of sustainability. To do this, suppliers come together to form groupings (i.e., cartels) and come up with one decision like price(s) at which they prefer to supply. An ETC member revealed:

The other thing I have seen is that people do actually gang up in order to get you to pay more. You may have something which costs GH 10.00, but if suppliers after seeing the advert decide that the minimum bid for each supplier is say GH 15.00, you are by law mandated to buy from the least bid whose price will still be higher than the man selling on the street (KBTH/R/08).

A study by Ochieng [16] indicated that suppliers in Africa resist inculcation of sustainability through consistent behaviors to stall progress. Ochieng did neither demonstrate how this is done, why it is done, nor the very sustainable standards resisted. Unlike Ochieng, the current study demonstrates specific behaviors, the nature of suppliers' resistance, and the reason for resistance.

## 4.2. Political challenges

A political challenge in this context manifested in three ways including forces from politicians, superiors, and users imposed by both internal and external actors to prevent following rules without considering economic, financial, social, and environmental effects. The power wielded by these people can pave the way against established standards and may lead to selecting the wrong bidders.

#### 4.2.1. Forces from superiors

This is an internal challenge posed by powerful and strong people within the hospital who mainly include superiors of procuring officials influencing subordinates to favor certain bidders. Such a force which is strong enough to be refused was illustrated by a participant. According to him, "because of forces from our superiors we are pressurized to receive certain products" (KATH/R/03).

This tends to lead to paying relatively higher prices and/or execution of relatively inferior quality contracts. This probability is high because such bidders once they know they are favorites and their chances of winning contracts do not depend on the price

or quality offered may go ahead to offer anything. A finding of Ruparathna and Hewage [77] supports this study when they reported that procurement officials usually "have less influence on implementing sustainability initiatives". The source of this influence was not made clear in their study. This opens up the influence to come from a lot of sources including superiors. It is even truer looking at a report from a study in France health sector which "found that procurement personnel always face internal opposition in their procurement decisions" [78].

#### 4.2.2. Forces from users

Internal political challenges also come from users who play an important role in procurement. Reports indicate that users do abuse opportunities for part-taking in decisions on procurement. They arrange with some bidders and force their interest through the procurement process by opting for certain bidders even if they do not come with the best bid in terms of price nor quality. An interviewee said,

Even the users can have that interest. ... You can procure a certain product which is very good with the quality even above what they expected but they will reject based on their hidden interest (KATH/R/03).

This negative influence could be more effective depending on the section of users. According to Oruezabala and Rico [78], procurement personnel do face internal opposition. This opposition is hard to resist especially when it comes from medical personnel whose decisions seem unchallenged because of their role in service delivery.

#### 4.2.3. Forces from politicians

External political influence was also recorded, aspects of which might especially come from members of political parties. Such people may be fighting for their political parties at the blind or conscious side of their parties or for their interest using their status as powerful people in politics. This influence, which may also come from the government especially after appointing bureaucrats [79] and expecting they must show loyalty by kowtowing to certain demands, was put the following way.

And the main problem, the forces can come from politicians' o! ... they will force you to accept certain products or go through a certain process. Even sometimes, it goes to the extent of doing sole-sourcing (KATH/R/03).

In Canada, Ruparathna and Hewage [74, 77] in different studies indicated project owners have less influence on implementing sustainability initiatives. Their reports indicate unforeseen but perhaps powerful hands usually preventing procuring officials from procuring sustainability. Though in neither case did the authors clarify the source of this influence, the description fits political purposes. This does not create the impression of politicians being the only probable people who could cause such influence. However, they cannot be counted out due to the extent of power they wield and how they are reported of regularly influencing bureaucrats. According to Meier et al. [80] for instance, politicians do not allow bureaucrats sufficient autonomy to implement policies and decisions.

## 4.3. Bureaucratic and structural/system challenges

There were also challenges relating to processes, procedures, structures, and systems of doing procurement. These include rigidity, issues with emergency purchase, and limited use of sole-sourcing. They might not have been reported by any study on SP but have been reported as challenges of bureaucracy [81].

#### 4.3.1. Rigid system

Just as many bureaucratic systems [81, 82], the current study found the processes required to procure as too rigid. A participant said,

... in a private sector, it's easier ... you can innovate by going in for the best ... there are flexibilities. But you know, over here there is so much you have to follow. ... There is too much rigidity (KBTH/R/02).

From the responses, lack of innovation is a by-product of rigid bureaucratic systems. Unfortunately, some of the reported procedures are just needless paperwork which nevertheless cannot be overlooked but which prevents innovation in procurement. A participant explained

... a situation where the supplier doesn't even know ... his document is expired, and he has brought the good item with a very good price. But yet, because his tax clearance has expired, we have to council his bid outright although the bid might be economically good for the hospital (KBTH/R/02).

This prevents innovation and personal initiative and is supported by Russell [82] in his study on emergency services. In this study, it is noted that rigidity in procurement processes frequently results in higher costs. This is due to the necessity of procuring goods through middlemen rather than directly from wholesalers or distributors. This situation arises from the inability to obtain the necessary paperwork by some wholesalers. This renders the system more dysfunctional than functional.

#### 4.3.2. Emergency procurement and sole-sourcing

Findings indicated several cases when emergency procurement and/or sole-sourcing like procuring from an old supplier is/are needed to be done. There are cases of usage exceeding budgeted procurement, parts of machine/product needed to be replaced, etc., which may arise as a result of emergencies. In some cases, the nature of such emergencies may not allow going through the prescribed procurement process in the Procurement Acts 2003 and 2016. However, once the cost of such procurements exceeds the threshold for sole-sourcing or internal approval, protocols require going through a long and rigorous process which time for saving a life and death situation might not allow. Explaining this, an interviewee said,

... it follows a very restrictive procedure. You can't procure anything without using the procedure. But there are times you have to procure due to emergency, in such cases it disturbs the flow of rendering services (KATH/R/05)

Again, limited use of sole-sourcing poses a challenge as illustrated.

... let's look at this GE machine. If this machine should break down and we need another machine, the procurement law dictates that we go through competitive bidding.... somebody can come with another brand, such that after procuring, you will have to learn how to use it... instead of buying something that you are used to.... That is a big challenge, the inability to sole source. And even if part of the machine should go off, I mean, it makes no sense that you have to now go and bid ... from different people when you can actually just go talk to the supplier that I need this (KBTH/R/05)

The scenario gets more complicated because of the issues with limited use of sole-sourcing and open market buying which are relatively good options compared to national or international competitive biddings when racing against time during which national or international competitive biddings would have been better. The complicated effect is undue delay and sometimes inability to salvage emergencies. This corroborates with the argument of strict and rigid rules, regulations, systems, etc., being unhealthy for providing emergency services like healthcare [82]. The nature of services provided by healthcare firms makes it important for policies, procedures, and rules not to be extremely strict.

## 4.4. Legal challenges

The legal frameworks surrounding procurement are a huge challenge for SP. Legal challenges come in a form of lack of adequate legal framework, the rigidity of existing framework, and circumventing of an existing legal framework. Shreds of evidence of legal challenges are demonstrated and discussed below.

#### 4.4.1. Inadequate legal framework

The study indicated insufficient or inconsistent policies, regulations, incentives, and commitment posing a challenge to SP adoption. A respondent was quoted saying,

If you want to go that direction fully in terms of ensuring supplier visibility...like in other jurisdictions where buyers will be saying they want to know if you have sustainability credentials before procuring from you, this is lacking... In other areas, if...you are producing something, they would like to know...whether you are cheating the people...under-paying them...not using child labor, etc., This is not so in our system (KBTH/R/01).

This is consistent with the literature. In Zimbabwe, despite embedding sustainability in the legal system as far back 2001, a recent study indicated that the Act is not clear with issues of sustainability but has hazily demonstrated the subject [17]. When this happens at the national (macro) level, implementation/adoption becomes obstructed. At the micro-level, sustainability is also obstructed if organizations do not have adequate and clear structures. Even with clear macro structures, corresponding microstructures are needed to make a bigger policy functional, but this is not true for SP. For example, 57% of study respondents in Southern Africa reported their "organization has not incorporated sustainable SCM (SSCM) in the entire corporate strategy" and lacks "precise definition and assessment method for green practices" [17]. In East African Kenya, Ochieng [16] reported a similar issue following an earlier report of a notable absence of mandatory regulation for effective implementation of SP [83].

It is evident this challenge is neither unique to Ghana nor selected countries like Zimbabwe [17]. It is a characteristic of the entire developing world as Simpson and Power [61] argued that a low level of procurement enactments is consistent in developing countries. This hampers successful execution of SP systems like in Cambodia where Durdyev et al. [84] ranked "lack of statutory requirements that cover sustainable procurement" as the fourth challenge and reinforced by several studies previously [29, 83]. Government regulations [29] reinforced by political commitment are reported as a driver of SSCM with a lack of government initiatives for green supply chain practitioners leading to lack of friendly SSCM policies [85]. Snippets of evidence that challenge regarding inadequate legal framework is less pronounced in the developed world are provided by Sönnichsen and Clement [47] when they found that majority of firms from the UK indicated supportive governmental/legislative climates for influencing familiarity and adoption with policies regarding SP.

#### 4.4.2. Lack of protection for going sustainable

SP is said to come with an extra (perceived) cost because products designated "sustainable" are relatively expensive on face value. Therefore, there should be a concordance of stakeholders to protect officials who procure sustainably. However, the study found the legal system does not provide such protection. Procuring officers thus have no basis to choose sustainability over other factors such as low prices when they are faced with the dilemma. A respondent illustrated that "some of them ... you can

see that one is better than the other, but we will decide to go for [the] least quality once that is cheaper” (KBTH/R/02). Another said,

the procurement law should be aligned . . . to support sustainability such that . . . when they go that tangent and it becomes expensive they should be backed by law . . . for example, if you are procuring say fruits, . . . and we want to do sustainability, it is likely we will incur more cost since sustainable goods are more expensive (KBTH/R/01).

Literature supports the idea that such protection has sometimes been absent. In a study, Muchaendepi et al. [17] found lack of protection for procuring officials a major challenge to adopting sustainability standards by reporting 70% of respondents indicating “no incentives and motivation to integrate SSCM” (p. 496) practices. This may also be in the form of a lack of material or psychological motivation, or protection from management, legal instruments, etc., While laws do not provide such support, auditors dwell much on immediate cost and are likely to raise eyebrows and questions when procuring officials opt for expensive alternatives.

#### 4.4.3. Circumventing the legal system

Reports were citing a section of officials circumventing and taking advantage of the procurement system. One such report indicated, “you will need PPA approval for certain purchase levels, but if you want to break bulk, then they can do that. In that case, they have circumvented the system” (KBTH/R/02). This challenge has much ado with the economic challenges of breaking bulk and logging because the main purpose of engaging such acts is to circumvent the legal procedures and avoid approvals at appropriate units. This means there could be inappropriate purchases that were not detected. However, the strict rules of legal and bureaucratic systems create challenges for emergency purchases. Additionally, there is limited use of sole-sourcing. Because of these factors, we cannot ignore the possibility that some rules may be bypassed for the benefit of the hospital or its clients.

### 4.5. Technical challenges

Technical challenges identified included lack of technical knowledge, technical infrastructure, and overall technical capacity and support from management. While technical challenges might not be new, their form looks novel. The proceeding discussions highlight components of the technical challenges.

#### 4.5.1. Lack of knowledge

Reported cases of lack of knowledge among procurers and clients involve a lack of knowledge on sustainable products and processes of procuring sustainably. These arise from the non-inclusion of SP in the regular school curricular and not taking specialized courses or training programs on the subject. An acknowledgment of neither workers nor clients’ knowledge was reported as,

I don’t have any such idea . . . we haven’t involved in that, and I haven’t studied much about it . . . the populace has also not been fully educated with issues concerning sustainability in order to demand such a thing (KBTH/R/02).

Studies by Nangpiire et al. [26] identified a lack of knowledge on SP to include lack of knowledge on sustainable products, how to identify such products and the processes to procure them. Other scholars described the challenge as lack of awareness, understanding, information, commitment, and demand [74, 75], internal expertise on sustainability [16], professional capabilities/designers, training, education [84], and skilled professionals [86]. The challenge seems dominant in literature because sustainability is a complex

concept with a lot of procurement professionals lacking the skills and knowledge necessary for implementation [47]. Nangpiire et al. [87] found as much as 83% of purchasing professionals consider themselves ill-equipped and unsure how to incorporate sustainable issues in buying. In more recent studies, lack of professional capabilities and training and education were respectively ranked 6th and 7th among the barriers [84], indicating that the barrier is still significantly important. Again, in accessing barriers and drivers of SP, Leal Filho et al. [15] indicated adoption is far below policy plans with reason identified as lack of knowledge. Although it might not be justified given the urgency of sustainability, the challenge seems to come from the fact that SP is a relatively a new concept that continues to evolve with efforts to incept procurement procedures by many countries and organizations now underway.

#### 4.5.2. Lack of overall technical capacity and support

It has been evident the hospitals have not demonstrated adequate support for SP leading to a lack of overall technical capacity in terms of the personnel, support for decisions, and provision of cost components for SP. Meanwhile, it was noticed during the interview sections that SP decisions come at a cost. This supports Bamgbade et al. [28] assertion of managerial support affecting SP adoption but went ahead to indicate management has often not granted such support and encouragement. In another context, though Muchaendepi et al. [17] made a strong case that “interior backing from top management was a basic determinant to the implementation of SSCM” (p. 497), 92% of respondents reported “less back up from the top management for SSCM” (p. 496) as its main challenge. Other studies support this claim. Ochieng [16] reported lack of backing from management, Durdyev et al. [84] rated lack of government incentives as the second most significant barrier in Cambodia, while in Canada, it was pointed as lack of funding for projects [74, 77]. It is therefore not surprising the challenge accounted for a slug in the adoption of SP in this study.

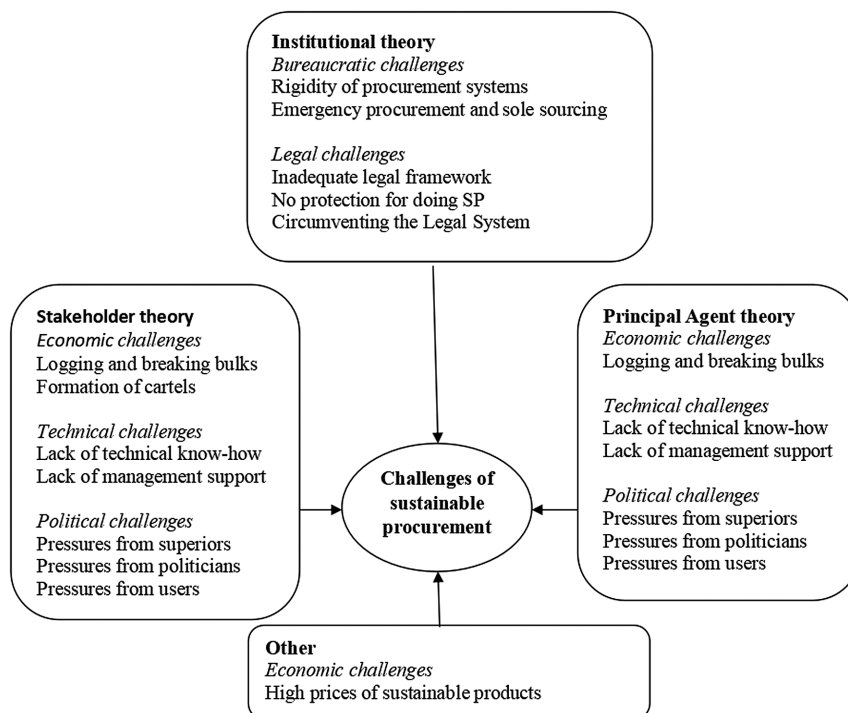
Perhaps the reasons for lack of managerial support are linked to awareness of the potential benefits of SP. People embrace SP easily once they are aware of benefits [26], meaning unwillingness to provide support is reinforcing the idea of lack of knowledge and awareness of benefits. Again, considering the argument of organizational incentives and the degree of an organization’s support for sustainability being dependent on organizational culture [47], it can be argued that lack of support is a demonstration of hospitals in Ghana not yet developed sustainable culture.

Conflicting evidence provided by Sönnichsen and Clement [47] indicates support from leadership and implementation of strategies as the most frequently highlighted stimulant of SP. This contrast might come from the developed-developing factor as most of their samples were from the developed world. While the individual components of the technical challenge have been identified as solitary challenges in existing literature, the study has been able to come up with how they combine to affect SP.

### 4.6. Theoretical context of challenges of SP

PAT, ST, and IT have explanations for the challenges of SP recorded. There were cases where agents relied on the superiority of information to smear the process with unsustainability. Some agents relied on their knowledge to circumvent rules to serve their interests. Reports of procuring officials engaging in logging and breaking bulks to escape rigorous approval processes of

**Figure 1**  
**Theoretical context of the challenges of SP**



procurement plans are demonstrations of information asymmetry leading to discretionary decisions to smear the adoption of SP [88]. Besides, cases of superiors imposing bidders even when such contractors do not present good offers are demonstration of conflict of interest just like users rejecting products when there is nothing wrong and vice versa. These are in line with arguments by Zu and Kaynak [34] that, in executing their duties, agents satisfy their interest against that of the agency relationship. Agents also lack the required knowledge and technical capacity as shown in diagram 1.

There are also occasions when activities of some stakeholders worked against adopting SP (see Figure 1). Specifically, some suppliers were found to have occasionally formed cartels to increase prices. Politicians and superiors were found to have put pressure on officials to accept products from certain suppliers while user departments were also reported with special interest leading to false acceptance or complaining over certain supplies. Some stakeholders also lacked the required knowledge. The combined effects of ill-fated interests from sections of stakeholders have narrowed the gate to the adoption of sustainability.

## 5. Conclusions

The link between ST and challenges of SP prepares a fertile ground to conclude that it is not in all cases that the consideration for stakeholder interest makes organizations effective and perform better as proposed by the stakeholders’ perspective. Instead, there are cases when organizations’ quests to maintain relations with certain stakeholders may make the former engage in dysfunctional behaviors as recorded in the study. It is therefore up to business managers and decision-makers to be able to identify and categorize which stake, from which section of stakeholders is in the best interest of their organization and the larger society. In this regard, organizational decision-makers should be skilled enough and able to identify good stakes from the bad stakes and be resourced with the

guts to refuse ill-fated stakes no matter where the stakes are coming from. The study identified that legal issues (specifically inadequate legal framework, lack of legal protection for doing SP and circumventing the legal system) and bureaucratic challenges (specifically rigidity of procurement systems and issues with emergency procurement and sole-sourcing) are among the challenges confronting the adoption of SP. From the perspective of IT, it can be concluded that inadequacies and/or excesses of institutions serve as a strong force against the adoption of SP.

## 6. Limitations and Recommendations for Policy and Research

Since the findings provide multifaceted challenges of SP in Ghana, the study recommends attempts to combat these challenges should also be multifaceted. The emergence of new challenges in the current study provides an indication of possible yet-to-be-uncovered challenges. Due to this, the study recommends that the ongoing draft of SP policy in Ghana should not be rushed to operationalization but instead conduct further studies that are national in character in order to feed the findings into the policy before implementation.

The number of SP studies in the public sector has been categorically described as limited [89] especially in the health sector [47, 90]. Nevertheless, different public sectors are said to have “divergent missions, priorities and challenges” (p. 1268), and thus, Health Care Institutions (HCI) are likely to be confronted with different issues of sustainability. This places a limitation of generalizing studies from other sectors to HCI. The study therefore calls for more studies, especially in the health sector of Ghana. Moreover, the neglect of the current study in addressing the extent and rate of SP adoption in Ghana calls for studies to fix that gap. Again, it is useful to conduct studies to test the extent to which challenges identified in this study can significantly affect

SP. Procurement function is known to extend beyond immediate suppliers, the buying function, and purchasing clerks [78]. For this reason, the study included a wide variety of personnel with a stake in the supply chain. Nevertheless, the current study did not involve suppliers' suppliers who are part of the supply chain function. It is therefore recommended for future studies to consider including suppliers' suppliers in their samples. It is equally imperative to comprehensively explore ways of addressing the challenges of SP.

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## Ethical Statement

The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the the Korele Bu Teaching Hospital Scientific and Technical Comitee(KBTS-STC) (Identification No.: KBTH-STC 0071/2019) and the Committee on Human Research, Publications and Ethics, University of Ghana (Reference No.: CHRPE/AP/322/19) and the Ethics Committee for the Humanities(ECH), University of Ghana (Reference No.: ECH 119/18-19).

## Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

## Data Availability Statement

Data are available from the corresponding author upon reasonable request.

## Author Contribution Statement

**Foster Abrampa Opoku-Mensah:** Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Visualization, Project administration, Funding acquisition. **Albert Ahenkan:** Conceptualization, Resources, Data curation, Writing – review & editing, Visualization, Supervision, Funding acquisition. **Francis Adane:** Software, Validation, Investigation, Funding acquisition.

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