INSTITUTIONALIZING SUSTAINABLE PROCUREMENT REFORMS: GOVERNANCE MODELS AND ACCOUNTABILITY MECHANISMS IN DEVELOPING ECONOMIES

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Abstract

Public procurement was once simply an administrative task, but now it has become a more strategic policy tool that can help promote the economy, protect the environment, and create socially inclusive markets. Since many developing countries spend a large part of their Gross Domestic Product (GDP) with public funds, these countries' procurement systems can help them achieve sustainable development goals through environmentally credible markets and socially inclusive economies. Although many developing countries have passed legislation that includes principles of sustainability in the area of public procurement, there is still a significant gap between formal regulatory commitments and the actual implementation of these principles. The effective institutionalization of Sustainable Public Procurement (SPP) is often limited by administrative weaknesses, limited technical capacity, the complexity of governance structures, and the risks of corruption.

This research examines how the governance models and accountability mechanisms used by developing countries impact the implementation of sustainability in their public procurement systems. The analysis is based on relevant theories of Neo-Institutionalism and Principal-Agent Theory, which are used to analyze the relative strengths and weaknesses of centralized procurement versus decentralized procurement versus hybrid systems of public procurement governance. This article contends that centralized public procurement governance models provide standardization and leverage the market; decentralized models of public procurement governance provide flexibility and innovation; and hybrid models of public procurement governance, which combine central policy coordination with decentralized implementation, achieve the best institutional balance to incorporate sustainability criteria into public procurement practices.

This research provides more information on how the use of accountability measures such as e-procurement systems, digital transparency systems, open contracting initiatives, and civil society monitoring can help reduce information asymmetry, limit the ability to abuse discretion, and increase compliance with sustainability goals. Sustainable procurement reforms were found to work most effectively when they adopted an integrated accountability framework that is based on both internal digital monitoring and external social monitoring.

Keywords: Sustainable Procurement, Governance, Accountability

Introduction

In the last 20 years, there has been a significant change in the way people think about public procurement. For many years, it was seen as an administrative process used to buy goods/ services at the lowest possible price. Today, however, public procurement is being increasingly recognized as a strategic policy tool that can shape market behaviors and support the delivery of national development priorities. The majority of governments across the globe are now utilizing their public procurement systems to create incentives for innovation, promote environmentally sustainable practices and foster social equity. This paradigm shift is particularly important in developing economies where the value of the public sector procurement market represents between 15 and 30% of GDP and thus has the potential to provide a significant lever in transforming both the economy and society as a whole.

The notion of Sustainable Public Procurement (SPP) embodies this evolving view of public procurement's strategic role. SPP is the integration of environmental, social and economic factors into the procurement decision-making process. Rather than only taking price into account, SPP assesses bids based upon total life-cycle costs, environmental impacts, labour standards and overall societal benefits. Through this methodology, governments can incent the marketplace for environmentally-friendly products, promote responsible corporate conduct, and advance Inclusive Economic Growth.

The development of sustainable procurement frameworks has benefitted greatly from international collaboration. The major international organizations involved in this effort include the United Nations Environment Programme (UNEP), the Organization for Economic Co-operation and Development (OECD), and the World Bank, all of which have created guidelines to help countries adopt sustainable procurement policies. These guidelines are consistent with the objectives of the United Nations Sustainable Development Goals (SDGs), including responsible consumption and production, climate action, and inclusive economic growth.

Despite an increasing global consensus around the necessity of sustainable procurement, the implementation of the concept is inconsistent in developing countries. Although many governments have passed procurement laws and policies that require the consideration of sustainability criteria, the vast majority of those reforms fail to result in meaningful changes to procurement practices. Sustainability requirements are often a part of formal legislation but do not inform most day-to-day decisions about procurement; as a result, sustainable procurement reforms are frequently only symbolic.

The ongoing disparity between the policies adopted and their complete implementation in a practical way, questions the types of institutional conditions required to have sustainable procurement operationally embedded in the government systems. Understanding the elimination of these gaps is even more important when working within developing economies, where factors such as limited administrative capacities, poor governance conditions and a lack of resources significantly delay implementation.

The purpose of this paper is to advance the knowledge associated with determining how the governance model(s), and accountability mechanisms influence the institutionalization of the sustainable procurement reforms in the developing economies. More specifically, this paper will examine how an organization's structure of governance impacts the implementation of sustainability criteria; and what can be done through various accountability mechanisms to reduce corruption, promote transparency, and ensure compliance with sustainability objectives.

This study will provide a framework for the user to analyze the governance dynamics associated with the development of sustainable procurement through the use of both institutional theory, and scholarship associated with public administration. The results of this research will provide governments with actionable recommendations related to transforming their procurement systems, to become effective vehicle(s) for implementing sustainable development policies.

Problem Statement

The concept of sustainable procurement is gaining importance within public sector reform. However, the actual execution of sustainable procurement continues to present challenges. Numerous developing nations have put in place procurement law based upon international best practices with assistance from multilateral development organizations. These types of reform typically include clauses mandating or encouraging use of environmental and social criteria as part of the procurement process. Nevertheless, implementing a legal framework of this nature does not always result in actual changes in how administrators conduct themselves.

Two major factors contributing to the difficulties in successfully implementing sustainable procurement are the use of the traditional "best-price" procurement approach and the lack of institutional capacity. Historically, public sector procurement systems have been designed primarily to minimize the cost of procurement, limit opportunities for corrupt behavior through standardized forms of competitive bidding, and encourage greater transparency and fiscal responsibility regarding government purchases. Even though these processes continue to have an important role in delivering transparency and fiscal accountability around public procurement, procurement professionals are often discouraged from looking beyond just price alone (i.e., to include lifecycle costs and sustainability) when deciding whether or not to purchase goods/services from suppliers. Procurement professionals do not have many of the analytical capabilities and resources needed to evaluate environmental effects, labor conditions, and long-term operational costs.

Institutional capability constraints are another significant hindrance to sustainable procurement. Many developing nations' procurement authorities lack sufficient technical capacity and staff to properly evaluate sustainability criteria as part of their procurement evaluation processes. Incorporating sustainability criteria into procurement evaluations creates an additional layer of complexity on top of what is already a difficult to navigate administrative process. Thus, procurement professionals must first evaluate their company's overall objectives and needs before beginning to identify how best to meet those needs.

Moreover, many procurement reform efforts are also impacted by a form of isomorphic mimicry (as defined by institutional theory) in which developing countries implement formal structures similar to those in developed countries but do not have sufficient capacity to effectively implement those reforms. As a result, developing countries may continue to maintain a modern compliant public procurement system with respect to international laws and standards but still utilize traditional practices when doing public procurement.

Additionally, poor governance and corruption create many problems for public procurement systems. Procurement activities often include large amounts of funds and many discretionary decisions by the procurement officials which provide opportunities for officials to engage in corrupt behaviour. When sustainability criteria are established in procurement processes without proper accountability mechanisms, the introduction of the sustainability criteria may further increase the discretionary nature of procurement decisions by providing a means for the procurement official to justify his/her decisions based on the subjective criteria established. Subsequently, the introduction of procurement sustainability criteria without proper accountability mechanisms may create new opportunities for corruption through increased discretion from the procurement official and insufficient transparency and oversight mechanisms.

The fragmented nature of the public procurement processes within different levels of government and different departments also make it difficult to implement procurement reform programs. In highly decentralized procurement systems individual agencies and departments make many of their own independent decisions in regard to how they conduct procurement. Such autonomy does provide opportunities for innovation in public procurement specific to a particular sector, but it also creates significant challenges in regards to maintaining a consistent application of sustainable procurement standards and developing a viable market for sustainable goods or services.

Theoretical Framework

This research utilizes Neo-Institutionalism and Principal-Agent Theory as two supporting theoretical perspectives used to understand the institutional factors influencing the successful implementation of sustainable procurement. The combination of the two theoretical frameworks provides insight into the structural constraints that can shape the behavior of organizations and the incentive structures that may impact individual decision-makers working within the procurement systems.

3.1 Neo-Institutionalism and Behavior of Originations

Neo-Institutionalism identifies the impact of formal and informal institutions on behavior of organizations. Institutions are defined as rules, norms and procedures that help to facilitate interactions within political and administrative institutions. According to the theory of institutions, organizations do not adopt structures and practices solely for efficiency reasons but also to gain legitimacy in their broader institutional environment.

In the case of sustainable public procurement, Neo-Institutionalism explains why governments adopt policies of sustainable procurement when there is limited capacity to implement these policies. Governments often adopt sustainable procurement policies in order to comply with international norms, comply with donor pressures and to comply with global governance frameworks that encourage alignment of government procurement systems with best practice. The implementation of sustainable procurement policies does not necessarily result in either the functional reconfiguration of public administration or the organizational behavior of administrative institutions.

Isomorphic mimicry is a very important concept for evaluating procurement reforms in developing countries. Isomorphic mimicry occurs when organizations adopt the formal structures of other organizations that are considered successful, such as certain organizations adopting popular best practices, however failing to develop the necessary latent capacities to carry out the function for which they were designed. For example, the government may introduce a set of procurement sustainability guidelines that a procurement officer is responsible for applying when evaluating a tender, but the procurement officer may lack the technical expertise to apply the sustainability guidelines as required or that they would be motivated to do so due to the lack of incentives in so doing.

Institutional theory provides a conceptual framework for understanding how to align the formal regulatory mechanisms with the administrative capacity and organizational incentives so as to make the reforms of sustainable public procurement more than symbolic in nature.

3.2 Principal-Agent Theory and Information Asymmetry

Principal-Agent Theory offers another conceptual framework that explores the relationships between the decision-makers (the principal) and those that delegate authority to the decision-makers (agents). In a public procurement environment, public governments act as the principal and the public officials responsible for making procurement decisions on behalf of the governments act as the agents.

A core difficulty with principal-agent relationships has to do with information asymmetries between agents and principals. In many instances, agents are more informed than principals are regarding operational decisions and therefore have an information advantage, which creates difficulty for principals in terms of being able to effectively monitor agent activities. In procurement contexts, these types of asymmetries can lead procurement officials to engage in behavior that favours their own convenience or institutional routines rather than the broader goals of policy.

Sustainable procurement increases these challenges due to the difficulty in verifying sustainability outcomes. For example, verifying whether suppliers of goods and services are meeting Environmental Standards or Labor Standards within global supply chains is very difficult and requires substantial monitoring systems. As such, when the verification systems in place are not strong, procurement agents may fall back on using traditional forms of assessment (e.g., price and delivery time) to assess suppliers.

As such, Principal-Agent Theory supports the development of accountability systems that can reduce the information asymmetry between agents and principals as well as to better align the incentives of agents with the policy goals of principals. Increased transparency through digital procurement platforms; open contracting initiatives; and external oversight can enhance the ability of principals (e.g., Governments, oversight bodies, citizens) to monitor procurement decision-making processes more effectively.

The combination of Neo-Institutionalism and Principal-Agent Theory provides this research with a multi-dimensional framework by which to understand the institutional conditions necessary for the success of sustainable procurement reforms.

4. Governance Models of Sustainable Procurement

4.1 Centralized Procurement Systems

The governance structures used to organize the procurement process strongly influence how effective sustainable reform will be. Distinct Governance Models define the allocation of authority, responsibility, or accountability for Sustainable Procurement Policy implementation by Public Institutions and shape how Sustainable Procurement Policies are interpreted and implemented by Public Institutions. In the case of Centralized Procurement (CP) Systems, a National Authority or Specialized Agency is responsible for undertaking all Procurement Activities on behalf of all Ministries, Departments, and Locally Based Entities. CP Systems have a number of benefits when implementing Sustainable Procurement: First, they allow for the use of identical, harmonically applied Sustainability Standards across all Procurement within the Government by a Centralized Authority that can define Standardized Sustainability Guidelines, Standardized Peaceful Evaluation Criteria, and other Certification Requirements that minimize the ambiguity of Implementation and ensure that all Public Institutions are implementing Sustainable Procurement according to the same Principles.

Second, they provide Governments with the ability to combine their Purchasing Power to influence Purchasing Decisions by creating significantly greater Demand for Sustainable Goods and Services than individual Ministries, Departments, or Local Governments could create independently. However, CP Systems can also be limiting; decisions on Procurement made at a National Level may not take into consideration the specific needs of each Ministry or Local Government. Additionally, Sustainable Procurement Policies may vary by sector (e.g., Sustainable Environmental Criteria for Construction Procurement may vary from Sustainable Environmental Criteria for Information Technology Procurement). Excessive Centralization can therefore limit the Flexibility of, and prevent, innovation within Sustainable Procurement Policies.

4.2 Decentralized Procurement Systems

Decentralized procurement systems give individual ministries, agencies, or local governments the authority to carry out their own procurement processes. This provides for tailored approaches to procurement activities in accordance with the operational needs of each entity. The flexibility associated with a decentralized procurement model encourages innovation in procurement practices as well as the ability for entities to develop specialized knowledge in certain sectors.

However, there are challenges associated with implementing sustainable procurement practices. Without appropriate mechanisms for coordinating across governmental units, sustainability-related practices may differ significantly from one entity to another. This fragmentation will also decrease the overall success of government-wide procurement reforms by providing inconsistent signals to the marketplace for suppliers.

In addition, decentralized systems may complicate monitoring and accountability for the compliance of procurement activities with sustainability standards. When procurement activities occur throughout multiple governmental entities, it is difficult for oversight organizations to keep track of compliance with sustainability standards being implemented throughout those entities.

4.3 Hybrid Governance Models

Governments are moving towards a hybrid model for their procurement governance, which incorporates aspects of both centralized and decentralized procurement models. Accordingly, the central authority implements a full government-wide policy framework, set of sustainability guidelines and uniform procurement procedures while local authorities follow these frameworks and guidelines.

Hybrid models of procurement governance aim to find a proper balance between providing policy direction to support the coordination of policies and allowing for discretion and flexibility to accommodate the unique circumstances of specific sectors and agencies. Centralized authorities develop common sustainability metrics and standardized certification systems for sustainability; thereby providing consistency in the sustainability of all government procurement activities. Conversely, decentralized agencies and authorities can adapt and use these metrics as necessary in order to support their own operational needs and pursue new and innovative procurement strategies within their agency or authority.

There is evidence to support the argument that hybrid governance models may be the best institutional framework for implementing sustainable procurement reform. A hybrid model can provide the benefits of strategic policy direction with the operational flexibility that facilitate both consistency and innovation in procurement practices.

Table 1. Comparative Governance Models

Dimension	Centralized	Decentralized	Hybrid
Standardization	High	Low	High
Flexibility	Low	High	Moderate
Sustainability Consistency	Moderate	Variable	High
Market Signaling	Strong	Fragmented	Strong
Implementation Risk	Moderate	High	Lower

5. Accountability Mechanisms in Sustainable Procurement

Governance structures influence how procurement systems are set up; while accountability mechanisms will dictate if the sustainability objectives are actually met in the real world. Effective accountability systems decrease opportunities for corruption, increase transparency and provide stakeholders the ability to track procurement decisions.

5.1 Digital Accountability and E-Procurement Systems

Digital technologies have changed the way governments govern public procurement in recent years with the advent of e-procurement platforms (the ability to do the purchasing process via computer). E-procurement platforms enable governments to perform purchasing processes electronically and generate an extensive digital record of the purchasing process through each of the steps of the purchasing cycle.

Digital systems improve accountability by reducing the availability of discretion regarding standards for conducting procurement and automatically recording the information required from the purchasing process. That means there is less opportunity for individuals to engage in discretionary manipulation related to purchasing procurement, or for there to be ambiguity about who made which decisions. Digital platforms create detailed records that can be used by surveillance/compliance authorities to conduct oversight over purchasing activity, which improves the speed with which those authorities can identify irregular activity within the purchasing process. In addition; e-procurement systems produce large amounts of data that can be analyzed to identify trends related to waste or corruption in the purchasing process.

Digital procurement platforms can also ensure that environmental and social criteria are consistently applied in bid assessments by including sustainability metrics as part of the evaluation process. Automated scoring matrices in procurement can consider the sustainability of a bid along with the price of a bid and decrease the opportunity for the omission of sustainability criteria when evaluating a bid.

5.2 Social Accountability and Civil Society Oversight

Formal digital systems of procurement are not the only means by which transparency in the procurement process will be achieved; social accountability mechanisms will also assist in ensuring transparency through external oversight provided by civil society organizations, investigative journalists and citizens' groups that create analyses of procurement data and highlight irregularities.

One way that social accountability is being promoted through open contracting initiatives, which require governments to provide public access to detailed procurement data, including tender documents, bid evaluation results, contract awards and implementation reports. Open contracting provides external stakeholders with much needed oversight of procurement processes and their compliance with sustainability commitments.

In instances where formal oversight of procurement is lacking due to capacity issues or political pressure, social accountability mechanisms provide the basis for external scrutiny of the behavior of procurement officials, thereby deterring corrupt behavior and encouraging compliance with sustainability standards.

5.3 Integrating Accountability Layers

The most successful public sector procurement accountability framework uses multiple tiers of accountability. Digital procurement systems allow for internal monitoring, while external scrutiny is possible through both open contracting and the involvement of civil society. When combined, these two forms of accountability incorporate an overall framework that allows for increased transparency and creates additional opportunities for preventing improper conduct in the procurement process.

Table 2. Accountability Mechanisms

Mechanism	Function	Governance Effect
E-Procurement	Digital traceability	Reduces discretion
Open Data	Transparency	Enhances oversight
Civil Monitoring	External accountability	Strengthens compliance
Certification Systems	Standard verification	Supports sustainability evaluation

Empirical Model

To test institutional effects on sustainable procurement performance, the following model is proposed:

$$\mathbf{SPP}_i = \beta_0 + \beta_1 \mathbf{GOV}_i + \beta_2 \mathbf{DIG}_i + \beta_3 \mathbf{SOC}_i + \beta_4 \mathbf{CAP}_i + \beta_5 \mathbf{X}_i + \epsilon_i$$

Where:

- **SPP** = Sustainable Procurement Performance Index
- **GOV** = Governance model (categorical variable)
- **DIG** = Digital accountability index
- **SOC** = Social accountability index
- **CAP** = Institutional capacity indicator
- **X** = Control variables (GDP per capita, corruption index, institutional quality)

Conclusion

The institutionalization of sustainable public procurement in developing countries is dependent on more than just formally adopting procurement laws; it also involves the interaction between governance design, accountability systems, and administration capacity. Even though many countries have incorporated sustainability principles into their procurement legislation, there remain significant implementation gaps that indicate that legal reform cannot, on its own, transform procurement behavior. Sustainable procurement will be successful only when it is connected to an institutional framework that aligns incentives, creates standard procedures and provides for credible oversight.

This analysis finds that governance structure is a critical variable influencing reform results. Centralized purchasing systems provide policy consistency, standardized sustainability criteria and increased market-shaping ability compared to decentralized purchasing systems; however, centralized systems have limited flexibility and can be slow to respond to sector-specific needs. On the other hand, decentralized purchasing systems provide some flexibility and location-specific innovation but are often fragmented, have inconsistent enforcement and create inconsistent signals to the marketplace. Hybrid governance models offer the best combination of central direction and decentralized implementation autonomy; therefore, they provide a means to balance the need for consistent operations and flexibility in implementation that allows the governments to integrate their sustainability objectives and the agencies to implement those objectives based on their own operational context.

The third major finding identifies the criticality of establishing accountability mechanisms as the basis for developing a functioning framework for ensuring transparency and integrity in sustainable procurement. Sustainable procurement includes more complex evaluation criteria than traditional low-cost models resulting in greater risk of discretion, lack of transparency, or opportunistic behavior occurring. Accountability systems should be viewed as a necessity in these environments. Digital accountably tools such as e-procurement systems, automated/real-time audit trail capabilities and public portals for access to data will help to mitigate information asymmetries, standardize decision-making and provide for real-time monitoring capabilities. In addition, social accountability mechanisms such as open contracting and civil society oversight, provide legitimacy and values to the procurement process by establishing external checks-on governmental performance when state-provided oversight is weak. The integration of these internal and external accountability systems is critical in developing nations where there are commonly high levels of institutional distrust, low levels of enforcement capacity and inadequate resources to support these accountability systems.

The findings also support how the perspectives of neo-institutionalism and principal-agent theory help in understanding the rationale for why governments may be willing to adopt sustainable procurement initiatives. Neo-institutionalism explains why many governments will implement sustainable procurement guidelines for the sake of appearing legitimate, but then fail to make changes to their underlying processes. Principal-agent theory explains why poor procurement monitoring processes and information asymmetries allow procurement professionals to revert back to their traditional lowest-cost procurement practices or use discretionary purchasing. Overall, the two theories combine to show that in order for governments to achieve successful procurement reform, they must establish both credibility and alignment of incentives within their institutions.

Several priorities from a policy perspective arise. First, governments need to make investments to professionalize the public procurement workforce via specialized training that develops skills in areas such as lifecycle costing, sustainable product evaluation, supplier verification, and contract management. Second, legislative frameworks should evolve past mere symbolic commitments and begin defining clear targets through mandatory sustainability criteria, comply-or-explain (C/E) provisions, and enforceable reporting obligations related to sustainability. Third, digital procurement infrastructures should be enhanced and/or expanded to facilitate appropriate traceability, data analytics, and transparency in the procurement lifecycle. Fourth, open contracting standards and mechanisms for stakeholder participation should be established in order to enhance the public's ability to scrutinize and trust public procurement.

Ultimately, sustainable public procurement should not be treated as simply a form of technical adjustment to tender processes; rather, sustainable public procurement represents an opportunity to fundamentally transform how we govern the use of taxpayer funds by innovating our approach to public procurement. For developing countries in particular, public procurement systems can be one of the most powerful tools to bring about inclusive, equitable growth; responsible environmental stewardship; and modernization of the institutions of government. If government accountability and governance systems are designed correctly and enforced effectively, public procurement can serve as a catalyst for achieving both national development objectives and commitments relating to sustainability at a global level. Future studies should test the governance-performance framework proposed in this article empirically within countries and sectors, while evaluating how political leadership, bureaucratic incentives, and market maturity affect the long-term incidence of reform.

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