

SUSTAINABLE PROCUREMENT: Concept, and Practical Implications for the Procurement Process.

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ABSTRACT

New trends in the field of procurement require embedment of sustainability principles in the way the entire procurement process is executed. The need to improve organisational efficiency, reduce waste, overcome supply chain risk, and achieve competitive position has made companies to start considering environmental issues from a competitive view point. Procuring organizations are more seriously involved in designing and implementing sustainable procurement policies focusing on how environmental issues and issues relating to other aspects of the sustainable development pillars (society and economy) can be integrated in the procurement process activities. However, a clear understanding of the concept of sustainability and how it is related to the procurement process is still lacking especially within the context of a developing country like Uganda. This paper seeks to review the concept of sustainable procurement, provide a discussion on the practical implications associated with sustainable procurement practices and identifying gaps that would guide future research.

Keywords: *sustainability, environmental 'foot print', sustainable procurement.*

1. BACKGROUND

In recent years, academics and practitioners have become increasingly interested in how organisations and their suppliers impact on the environment, society and the economy (Walker, H. and Wendy, P; 2006). The strategic role of purchasing and supply as a lever for sustainable development is much more manifested now than before. Contemporary commercial practices show that business organizations and business partners are focusing their Procurement strategies on reducing the environmental 'foot prints' of their procurement and supply chain activities. The need to improve organisational efficiency, reduce waste, overcome supply chain risk, and achieve competitive position has made companies to start considering environmental issues from a competitive view point (Humphreys, P.K.; 2003). Procuring organizations and other supply chain partners are more seriously involved in designing and implementing Sustainable Procurement Policies focusing on how environmental issues and issues relating to other aspects of the sustainable development pillars (Society and Economy) can be integrated in the procurement process activities. There are a number of drivers for this increasing prominence of sustainability including an increased understanding of the science relating to climate change, pressure from various stakeholders upon the organisations for the implications of their activities, and greater transparency concerning both environmental and the social actions of organisation.

These issues are relevant to managers as their stakeholders –customers, regulatory bodies, non-governmental organisations and even their own employees –are increasingly demanding that organisations address and manage the environmental and social issues which are impacted by their organisations (Carter, C.R. and Easton, P.L; 2011). Procurement managers are more relevantly positioned here as they can impact (positively or negatively) the environmental and social performance, through for example product or service specification, evaluation and supplier selection, and evaluating performance of the provider either by developing the performance evaluation criteria or using that criteria to evaluate the providers fulfillment of the contract for which the provider was contracted.

A systematic documentation of these ideas is seriously lacking and yet it would be of great relevancy in driving and guiding sustainable procurement initiatives. Research in this area too lacks proper direction. This paper presents a critical discussion of sustainable procurement as both a concept and a practice to bring out its practical implications in the execution of procurement processes, and identifying potential gaps for future research. Next to this background we present a brief review of related literature, key discussions, and conclusions and recommendations.

2. A REVIEW OF THE RELEVANT LITERATURE

2.1 *concept and meaning of sustainable procurement*

Reflecting broader concerns to achieve sustainable development, sustainable procurement has recently acquired a high degree of salience in policy circles internationally (Brammer, S. and Walker, H.; 2011). Sustainable procurement builds on the traditional procurement practice which it seeks to extend through the adoption of sustainability principles. Procurement is defined as acquisition of goods, works and/or services from the supplier (this may be an individual or organization). The procurement process is viewed as involving sourcing (planning: needs identification and assessment, supplier selection) contracting, monitoring and evaluation, and expediting; based on the model definition by Van weel (2002). Sustainable Procurement is a “process of acquiring goods, works and services from a supplier that provides the optimum combination of whole life costs and benefits to meet the customer’s requirements. It is a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, while minimizing damage to the environment (CIPS Knowledge Summary *December 2008 issue, also see Greengage Consulting –Sustainable Public Procurement Policy, April 2004. p6, & Aurora Energy’s Sustainable Procurement Policy Document version 3; September 2008*)”.

Sustainable procurement is about the process of purchasing goods and services that takes into account the social, economic and environmental impact that such purchasing has on people and communities. It is about considering what the products are made of, where they have come from, who has made them, how they are transported and how they are eventually disposed of (East Renfrewshire Council Corporate Procurement Strategy 2008-2011 p13 (Sustainable Procurement Policy)). Sustainable procurement means taking into account economical, environmental and social impacts in buying choices. This includes optimizing price, quality, availability ...but also environmental life-cycle impact and social impacts linked to product/service’s origin (PWC; 2010).

2.2 *Why is sustainable procurement important?*

In both private and public sectors, there is increasing pressure from customers, clients, government and the public to put sustainable procurement into practice. The 2002 World Summit on Sustainable Development stated that relevant authorities at all levels should: "promote public procurement policies that encourage development and diffusion of environmentally sound goods and services". In response to this, Business Operators and Professionals have been very fast to institute policies and strategies embedding sustainable development concerns; *for example* the UK Strategy for Sustainable Consumption and Production. As a step towards implementing this strategy, the Government established the Advisory Committee on Consumer Products and the Environment. A Europe –wide study published in August 2009 found out that 80 percent of buyers initiated sustainable procurement programmes in 2008, while 90 percent see them as “critical” to the survival of their business (web news, 19 August 2009).

Organizations practicing sustainable procurement meet their needs for goods, services, utilities and works not on a private cost-benefit analysis, but with a view to maximizing net benefits for themselves and the wider world. In so doing they must incorporate extrinsic cost considerations into decisions alongside the conventional procurement criteria of price and quality. These considerations are typically divided thus: Environmental, Economic and Social (also known as the “triple baseline”). The important areas of environmental concerns are; more efficient use of raw materials in manufacturing operations, pollution and waste, and energy savings.

2.3 *Sustainable procurement: potential benefits*

A review of existing literature can reveal that if implemented effectively, sustainable procurement has the potential to cut costs, shorten timescales, enhance stakeholder relationships, increase sales, reduce risks, enhance reputation and improve margins. Kennard M. (2006) indicates that benefits to an organization in adopting a Sustainable Procurement Policy will be to:

- control costs by adopting a wider approach to whole life costing
- Improve internal and external standards through performance assessments.

- Comply with environmental and social legislation
- Manage risk and reputation
- Build a sustainable supply chain for the future
- Involve the local business community

A broader list of potential benefits sustainable procurement practices may have for an organisation adopting such practices in its operations is availed as including;

- the existence of a defined procurement strategy and the value outcomes - the improved social, environmental and economic impacts
- compliance with national and international sustainability standards and regulations
- to have a better understanding of risks in the supply chain
- contributes to the sustainable organisational strategy
- better commercial/economic decisions from understanding of issues that impact on the procurement decision (whole life cycle)
- potential benefits in a long term relationship, innovation, better materials, alternatives, technical advice, emerging technologies
- if the objective is 'grab the cash' it's not sustainable, build a more sustainable platform and achieve savings year on year
- better quality of purchasing staff with more satisfying goals and improved performance
- education of suppliers
- much more proactive internal dialogue and challenge with demand side
- more effective evaluation of proposals and bids
- more 'sustainable' source of supply.

Source: CIPS December, 2008 Knowledge Summary

3. DISCUSSIONS

Until recently procurement practitioners and professionals focused their initiatives primarily on three dimensions: price, quality and time. With the dynamics in modern procurement practices there has emerged yet another (fourth) dimension; sustainability. Managing the various social risks that arise from environmental and social factors has become more important than ever before. Sustainable procurement has gained more prominence as both a concept and practice. The definition (s) presented above in regard to sustainable procurement, provide a broader view of the term 'Sustainable Procurement' as they indicate its concern for environmental, social and economic aspects. It emerges from a broader concept of Sustainable Development: a "development that meets the needs of the present without compromising the ability of future generations to meet their own needs (according to the report by the World Commission on Environment and Development – submitted to the United Nations General Assembly; in 1987)". This requires the reconciliation of environmental, social and economic demands i.e. the "three (3) pillars of sustainability (improving the quality of human life while living within the carrying capacity of supporting eco-systems (IUCN/UNEP/WWF (1991))". Sustainable Procurement involves application of Sustainable Development principles to procurement and is a key activity in helping to ensure that the world remains habitable and that people have a decent quality of life

An examination of extant literature shows that prior research has tended to examine sustainable procurement within particular countries in the developed economies including the United Kingdom (Hall, M., and purchase, D.; 2006), Sweden (Faith-Ell, C., et al.; 2006), USA (Coggburn, J.D.; 2004), German (Gunther, E., and Scheibe, L.; 2006), Canada (Hartshorn, J., et al.; 2005) and Spain (Cambra-Fierro, J. and Ruiz-Benitez, R.; 2011). Additionally most of these studies have investigated aspects of sustainable procurement in private sector organizations, typically with a focus on manufacturing industries and the environmental dimension of sustainability (Simpson, D.S., and Power, D.J.; 2005; Srivastava, S.K.; 2007; Svensson, G.; 2007; Waker, H., & Brammer, S., 2009). Waker & Brammer also indicate that in contrast to the literature on private sector organizations, comparatively little research has investigated sustainable procurement practices in the context of the public sector. They provide a conceptual framework of influences upon the propensity to engage in sustainable procurement practice. The model highlights four (4) influences to the degree to which sustainable procurement is implemented in organizations: (1) familiarity with policies, (2) perceived inefficiencies/costs of policy, (3) organizational incentives/pressures, and (4) supplier availability/resistance. They contend that there is a significant variation across public sector agencies in the nature of sustainable public procurement practice, and explain sustainable procurement as 'procurement that is consistent with the principles of sustainable development, such as ensuring a strong, healthy and just society, living within environmental limits, and

promoting good governance. Their research findings also indicate that while cost has been found to be the leading barrier to sustainable procurement, top management support is the leading facilitator.

Preuss, L. (2009) contends that despite the importance of the public sector procurement, the number of studies that investigate the role of public authorities in sustainable supply is still small. His research focused on the role of public procurement in bringing about sustainability in particular on the procurement function of Local Government Authorities in England.

According to M. Kennard (2006), Sustainable Procurement is the process whereby economic development, social development and environmental protection are balanced against business needs. He outlines the benefits of adopting a Sustainable Procurement Policy as Cost control, improved internal and external standards through performance assessment, and compliance with environmental and social legislation, business risk management, improved reputation, sustainable SC and local business community involvement. According to Kennard, greater consideration should be given to bid evaluation criteria so that they support sustainable methods of construction. The age old fixation of lowest price must go in favour of a whole life solution.

3.1 Implications of Sustainable Procurement

Sustainable Procurement should consider the environmental, social and economic consequences of: Design; non-renewable material use; manufacture and production methods; logistics; service delivery; use; operations; maintenance; re-use; recycling options; disposal; and suppliers capabilities to address these consequences throughout the supply chain. Realistically speaking, the social and economic concerns underlying sustainable procurement are already clear even within the conventional procurement and supply chain management activities. For example issues of costs, user friendliness, quality, efficiency in delivery e.t.c....; are the main focus of the supplier offer evaluation and/ or supplier selection process. Thus, for purposes of this paper we focus on the environmental aspect. In the below paragraphs we provide a brief discussion on how the procurement process is implicated.

3.1.1 Implications for the procurement process

With reference to these activities the implications of environmental procurement on the procurement process can then be highlighted. Sustainable procurement is now used by organisations to rethink and retool business processes (in this case the procurement process) to meet some of the 'greener' options.

During the sourcing process, sourcing companies are becoming more selective when determining sources of supply. Suppliers of 'more environmentally friendly products' are given priority. Good practices now require incorporation of environmental performance criteria in the supplier selection-evaluation stages. Also 'World Class Organizations' now incorporate environmental requirements in their product or goods/service procurement specifications. The incorporation of environmental issues in product design, evaluation and selection (also supplier selection) processes is par amount.

At the procurement (product/service) evaluation level there is need to assess whether the intended procurement (product/service) represent optimum value in terms of whole-life costing and quality so as to minimize any environmental impact. For evaluation of Suppliers, Organisations need to work out their supply chain partners to develop sources of supply, which support a culture of improvement of social environmental performance. An organisation should also adopt specifications, which develop socially and environmentally preferable goods and services at competitive prices. There is need to encourage environmental impact assessments of products in the design stage and tailor policies to specific products and issues, drawing from a 'tool box' of measures which include voluntary agreements, taxes and subsidies (August 2003 Published report on 'towards sustainable products').

At the level of evaluation of offers and selection of suppliers; organisations need to incorporate sustainability issues in their contract evaluation strategy. The strategy should incorporate Sustainability Criteria as part of the quality evaluation process. The criteria here may be based on the availability of sound Sustainability Policies. Supplier selection is considered as a process of selecting key suppliers based on pre-established set criteria; this traditionally revolved around price-but the now followed multi-criteria approaches require extension of such criteria to include among other issues: quality, delivery times, service, technical capabilities e.t.c... emerging offer evaluation and supplier selection frameworks are pursuing sustainable development goals (sustainable procurement goals and objectives tend to rhyme with those of sustainable development). For the selection process issues relating to institution of sustainable procurement or environmental procurement policies in Organisational Corporate Policies, Certification with environmental regulatory bodies e.g. National Environment Management Authority (NEMA) International Standard Organisation (ISO) e.t.c..., compliance

records among others provide clear basis for the relevant selection criteria. Humphrey, P. K. (2003) provides a framework on incorporating environmental criteria into the supplier selection process. Ideally, Storry's second question must be answered here. The best evaluated tender/bid should be the one that offers the best in all the three sustainability aspects.

The framework presupposes that the green /environmental supplier selection criteria can be categorized into two (2) groups: Quantitative and Qualitative criteria; and depending on whether an organization is using a reactive or proactive environmental management strategy, one or both groups of criteria may be used at the same time. Quantitative environmental criteria are based on the cost in monetary terms (environmental costs are incurred as a result of investments in environmental management processes, or because of destructive processes) and may relate to Pollutant costs/effects –environmental costs caused by a potential supplier, and improvement costs – representing the degree of commitment the supplier has in environmental management. Qualitative environmental criteria on the other hand are more subjective criteria with their application depending on the weight given to each one depending on its importance to the organization or industry and total points score obtained on the bases of the measured parameters; and relate to Management competences, Green image, Design for Environment (DFE), Environmental Management Systems and Environment Competencies. In the selection process all suppliers (say in this case supplier A, supplier B and Supplier C) are evaluated against these criteria in order to choose a more appropriate supplier that ought to be contracted.

Implications for *evaluation and monitoring*; performance indicators need to be defined on the basis of the issues incorporated in the selection process. Storry's third question (i.e. is the contractor delivering on sustainability issues?) is more important here. Contract management teams and others involved in contract evaluation and monitoring should ensure that sustainability targets are satisfactorily obtained from the contractor's performance. Consideration should be given to such issues as non-compliance penalties, costs of dealing with non-compliance cases, environmental cleaning costs and time, rate of emissions and so on. Kennard M. (2006) points out that project budgets supporting a business case built upon sustainable procurement must be split between the management of capital and revenue spending based on a plan that is environmentally friendly and that greater consideration must be given to bid evaluation criteria so that they support sustainable methods of construction or generation of goods & services.

In addition to the above the following general implications may not be left unmentioned.

- Emphasis on development and operation of environmental procurement policies across all business partners. In developed economies (for example Europe and U.S.) every business is required to have a Corporate Social Responsibility (CSR) Policy of which Environmental procurement is a key element. A performance evaluation report is required to show how the business has performed in the related aspects. Key performance measures considered (where applicable) are reduction in wastes, reduction in emissions, new products developed but which can be recycled. The use of the 'Impact Self Assessment Tool (ISAT)' is widely recommended. Companies like Shell Nigeria are already complying. This kind of policy requirement would help in driving sustainable procurement practices in developing countries (particularly Uganda being the country of the Authors' concern).
- There has been increasing intervention of the Government in ensuring minimization of the impact of Business activities on the environment, through environmental regulations e.g. National Environmental Management Authority (NEMA)-in Uganda.
- There is also increased need to create stakeholder awareness on issues sustainability procurement practices. The urgency associated with sustainable development and more specifically sustainable procurement as a contributory practice to the former should be understood and appreciated in the business agenda.
- There is increasing need to use costing approaches that accommodate environment related activities and costs e.g. life cycle costing or whole life costing, 'Input-Output' analysis, process flow analysis especially at product design and evaluation. Social accounting systems would also be of significance as these would cater for the social issues of sustainable procurement practices.

A discussion of such implications as above presupposes the need for procurers to rethink the way the procurement process as a whole is executed. The procurement activities whether considered singly or in combination need to be rethought so that the approach towards such activities is moved systematically to incorporate sustainability issues (see Figure 1 in appendix). As already mentioned, sustainability criteria have to be incorporated at each of the stages up the ladder. This rethinking of the procurement process is equally important for the academics and researchers as well.

3.1.2 Implications for future research

This sub-section is intended to highlight guiding points that would direct future research on the subject of sustainable procurement.

Although existing works show understanding and acceptance of the sustainable procurement concept and its related elements, there has been less attention (if any) in investigating how the practice should be prioritized for optimization of business value creation. It is literally unclear how the three elements (economic, social and environmental) should interact optimally especially for procurement decision making and implementation purposes. A performance measurement mechanism that can be used to measure the direct or indirect impact sustainable procurement practices may have on organisational performance is still lacking. This to some extent explains why sustainable procurement has continued to lack total acceptance in business practices.

A review of research that has been carried on this subject depicts that sustainable procurement has been studied more in the manufacturing sector, and less in the public and service sectors. It is also crystal clear that studies on sustainable procurement have been evident in the developed countries (including UK, USA, German, Spain, e.t.c....). Sustainable procurement as both a concept and practice is hardly heard of in the developing world. However, indicative government policies have been instituted, although there is nothing to tell their success. For example, in the past decade, the government for the Republic of Uganda announced a ban on the use of 'polyethen bags/papers'. Currently most of the locally produced food stuffs are packaged using the same material. This would lead to an imagination of policy failure. It is very unclear as to what explains this kind of trend in business practices. This provides a potential area for subject research.

It is further indicative that such sustainability initiatives as sustainable procurement have been a success in developed countries where there are favourable legal (and policy) frameworks. There is no empirical research however, to explain whether the absence or inadequacy of sustainability focused policies correlates well with the limited sustainable procurement practices in the developing countries. Research into this subject and within the context of a developing country perspective is more urgently called for. The role of public procurement and that of government in bringing about sustainability, in particular on the procurement function of both local and central government entities within such a country of developing state as Uganda needs to be empirically studied. Anecdotal evidence indicates that the contribution of public sector procurement to sustainability has not been adequately studied.

4. CONCLUSION

In this paper a brief theoretical discussion has been presented on sustainable procurement with a focus on its meaning, organisational benefits and practical implications for Procurement process. In order to give a more in-depth understanding and appreciation of the concept and policy and decision-making relevant evidence has been selectively provided for the reader's consumption. Future should consider sustainable procurement practices in the perspective of developing countries since these have had less representation in literature that exists on the subject. More empirical studies linking sustainable procurement practices to such related practices as green logistics management, green warehousing and social accounting among others also need to be considered urgent in research.

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APPENDIX

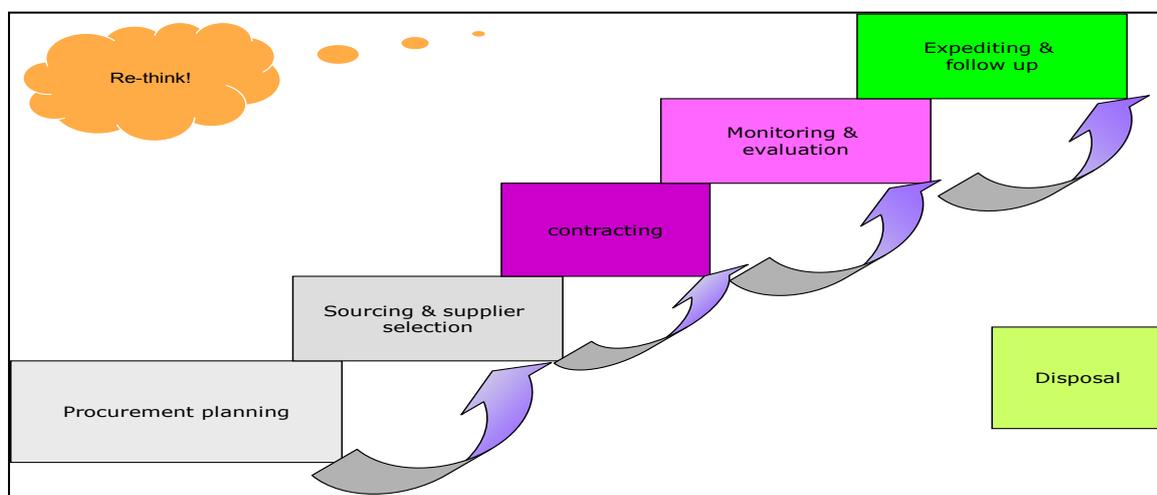


Figure 1: Procurement process to be rethought to include sustainability issues