

GREEN PURCHASING: A CHANGING CONCEPT IN CHANGING TIMEDr. Meenal Chauhan¹ and Dr. Rita Rai²**Abstract**

Over the last two decades, growing concerns about eroding ecosystem quality have led to a renewed interest in environmentalism. Business firms too have risen to the occasion and have started responding to environmental challenges by practicing green marketing strategies. This paper suggests a different approach to assess the variables of consumers' green purchasing behavior. Based on thoroughly researched secondary data, this conceptual paper suggests a framework integrating as proposed by previous authors. Emanating from this eclectic and chronological literature review, the paper will also propose further missing links that need to be included in the proposed integrated framework.

Introduction

Current concerns for global warming and waste management, among other environmental issues, are rooted in the system of production and consumption, which has promoted mass production, mass consumption, and mass waste. In order to address these issues, it is essential that we transform our economy and our societies into sustainable ones. This will require a commitment by all sectors to reduce environmental impact. We must immediately reduce the environmental impact of the goods and services that support our lifestyles and economic activities, and promote a shift in demand toward eco-friendly goods. In order to shift demand toward eco-friendly goods, it is important to not only promote the supply of eco-friendly goods, but also to prioritize the purchase of eco-friendly goods. The prioritization for purchasing eco-friendly goods will help form markets for these goods and services, which in turn will promote their development and, as a result, increased purchase of eco-friendly goods. The resulting continuous improvement will create a ripple effect in the market. It is necessary for all persons to make a strong commitment to prioritize the purchase of eco-friendly goods as an integral part of their lives. This is the first step toward wider environmental conservation activities by the procurement entities.

In recent years, the importance of green purchasing by the public and private sector to reduce environmental damage has been a focal point throughout the globe. Consumers are becoming more aware of the earth's fragility and the need to preserve its resources. In light of the negative impact inflicted on the environment to date, consumer preference is for environmental friendly goods and services. Governments are under pressure to take a formal stands to reduce environmental hazards, and many have enacted new laws, prompting enterprises to take responsibility for the entire life cycle of their products and services. The initiatives popularly termed "green procurement" and or "green purchasing" means that buyers require suppliers and manufacturers to meet certain environmental standards and requirements. Environmentally preferable" means products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

¹ Asstt. Professor, GJIMT, Mohali

² Sr. Lecturer, GJIMT, Mohali

Environment Regulatory Framework in India

Environment (Protection) Act, 1986 (EPA) -- The Environment (Protection) Act, 1986 that came into effect after Bhopal Gas Tragedy This Act is an umbrella legislation designed to provide a framework for the coordination of central and state authorities established under the Water (Prevention and Control) Act, 1974 and Air (Prevention and Control) Act, 1981. Under this Act, the central government is empowered to take measures necessary to protect and improve the quality of the environment by setting standards for emissions and discharges; regulating the location of industries; management of hazardous wastes, and protection of public health and welfare.

Environmentally Preferable Purchasing (EPP), often referred to as “green purchasing,” is the affirmative selection and acquisition of products and services that most effectively minimize negative environmental impacts over their life cycle of manufacturing, transportation, use and recycling or disposal. Examples of environmentally preferable characteristics include products and services that conserve energy and water, minimize generation of waste and releases of pollutants; products made from recycled materials and that can be reused or recycled; energy from renewable resources such as bio based fuels, solar and wind power; alternate fuel vehicles; and products using alternatives to hazardous or toxic chemicals, radioactive materials and bio hazardous agents. Green purchasing also refers to the practice of preventing waste and pollution by considering environmental impact, along with price, performance, and other traditional selection factors, when making purchasing decisions. The process of properly managing hazardous materials and waste starts with the purchasing process.

Green Purchasing

Green purchasing is adding environmental aspects to price and performance criteria when making purchasing decisions. Ultimate goal is to reduce environmental impacts of sourcing and to increase resource efficiency. Green purchasing is the practice of applying environmental criteria to the selection of products or services. It takes a number of forms, from relatively simple to relatively complex.

The International Green Purchasing Network (**IGPN** - www.igpn.org) is an organization which promotes Green Purchasing around the globe by coordinating those who take the initiative in implementing Green Purchasing toward sustainable consumption and production. The network consists of international organizations, businesses, governmental organizations, local authorities and NGOs. IGPN is expanding its global network and has been keen to establish some activities in India.

Green Purchasing Network India -- GPNI is an evolving network of professionals interested and active in the general area of sustainable consumption and production- more specifically: Green Purchasing and Public Procurement. It is currently a loose informal network of professionals primarily operating as an internet based electronic forum.

Green Procurement

Green Procurement guides every section of the society including governments, business, and consumers, when seeking to purchase products that are environment friendly. Green procurement is the selection of products and services that minimize environmental impacts. It requires an organization to carry out an assessment of the environmental consequences of a product at all the various stages of its lifecycle. This means considering the costs of securing raw materials, and manufacturing, transporting, storing, handling, using and disposing of the product.

Green procurement is rooted in the principle of pollution prevention, which strives to eliminate or to reduce risks to human health and the environment. It means evaluating

purchases based on a variety of criteria, ranging from the necessity of the purchase in the first place to the options available for its eventual disposal. The objectives of Green Procurement are:

- Creating awareness of environmental impact
- Rethinking material requirements and consumption
- Reducing the use of hazardous materials
- Improving energy efficiency of purchased materials
- Reducing pollution and noise levels
- Using recycled materials and recycling waste

Objectives of the Study

1. To create awareness amongst Indian industry and other stakeholders about Green Purchasing and Procurement (GPP)
2. To encourage and facilitate implementation of GPP projects to enhance the competitiveness of the Indian industries.
3. To recommend appropriate measures, implementing methodologies, and planning tools for Green Procurement in India.
4. To debate the objectives of Green Purchasing.

Scope

1. Understanding of green purchasing and related benefits in participating stakeholder constituencies; recent trends and emerging issues in green procurement
2. Action plan for developing and implementing guidelines
3. Methodologies to adopt the concept of green procurement for green supply chain Management.
4. Mechanisms to promote green purchasing or procurement.

Research Methodology

The present study is based on the secondary data collected from literature review of various articles, research papers, magazine etc. Based on thoroughly researched secondary data, this conceptual paper suggests a framework for green purchasing.

Why Green Purchasing?

Implementing a green purchasing strategy demonstrates good environmental stewardship and a commitment to meeting local and global environmental objectives such as reducing greenhouse gas emissions, protecting air, soil and waterways from harmful pollutants, and using resources sustainably. Implementing a green Purchasing program also ensures organizations are prepared to meet current and future environmental regulations or legislation.

- **Cost reduction** -- A major hurdle to overcome in organizations is the perception that green purchasing practices cost more, when in reality, switching to greener products or services can generate savings or be revenue neutral. Though price premiums do exist for some green products and services, a strong business case can often be made using full cost accounting. For instance green products often have lower total cost of ownership due to reduced costs associated with operation (e.g. energy and water use) maintenance, replacement (due to higher durability), disposal and environmental compliance.

- **Risk reduction** -- Risk reduction is an incentive for organizations to purchase green. By buying greener products or services, organizations can avoid risks—which often translate into financial costs or losses—associated with: purchasing a (e.g. products which contain toxic chemicals); purchasing an offensive product (e.g. paper sourced from illegal logging practices); reputational risks associated with working with suppliers who have poor environmental track records (e.g. local pollution); supply chain disruptions (e.g. noncompliance with environmental regulations).

- **Revenue Growth** -- Improving the environmental sustainability of your organization's purchasing decisions inevitably greens the products and services you offer. By delivering eco-friendly products/services that reflect customer values, organizations can satisfy stakeholder demands, enhance brand image, gain an edge over competitors, and improve customer loyalty and satisfaction.

- **Soft Impacts**

Many benefits of green purchasing are quick and visible, such as reduced waste. However, other, equally significant impacts are by nature less tangible because they occur gradually or perhaps are more difficult to quantify. These 'soft effects' can include increased environmental awareness and engagement amongst employees, suppliers, and stakeholders with positive impacts on efficiency and brand image.

How to formalize your green purchasing efforts

Many organizations recognize the benefits of greening procurement but are unsure how to formalize and Implement their efforts.

Criteria for success -- The following criteria help green procurement practices take hold and become part of how an organization operates:

1. For green purchasing programs to be effective, organizations should embed sustainability in their key principles, including the procurement and supply chain. To make this happen, senior management, such as the CEO or head of purchasing, must be onboard.
2. Consider formalizing your organization's commitment by: including a green procurement clause in existing policy; developing a stand-alone green procurement commitment document; or signing external green procurement pledges such as the Commitment to Buy Green.
3. A clear and formal strategy for greening procurement.
4. Environmental attributes of products and services which defines what environmental characteristics your organization will consider when purchasing products and services and should describe what preferences will be given.

The place to start is by recognizing the different drivers that influence sustainability purchasing within your organization. Knowing what is important to the senior leadership's business strategy goes a long way in helping to identify necessary tradeoffs.

For the most part, sustainability purchasing drivers fall into four main categories: *risk reduction*, *cost efficiency*, *performance improvement* and *innovation/new product development (NPD)*. Each driver influences purchasing across products (or services) and processes.

Product purchases are all those purchases that go into cost of goods. *Process purchases* are all purchases that enable better operations within the organization. (At Starbucks, for

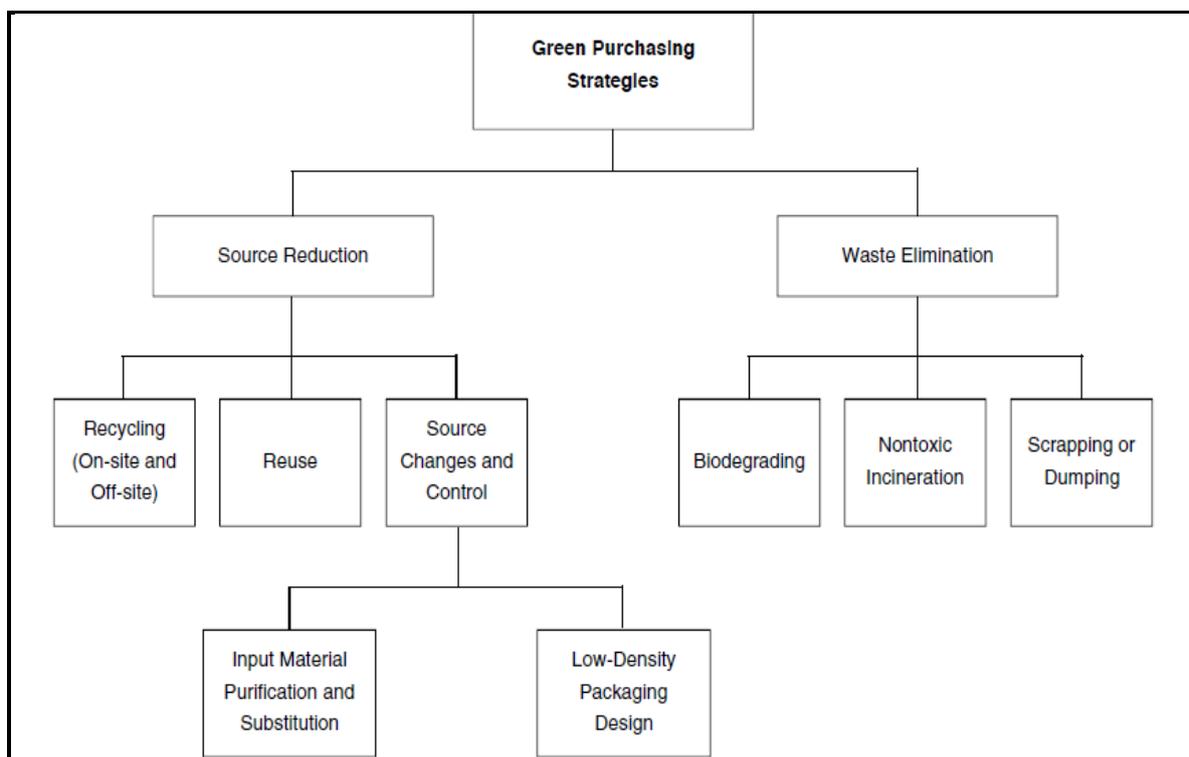
instance, free-trade coffee is a product purchase. Energy-efficient espresso machines, on the other hand, are process purchases.)

Combined, these four drivers and types of purchasing (product-versus-process) engender multiple kinds of purchasing needs. Here is an example:



Above, each gray cell represents a product purchase or process purchase driven by the four categories listed across the top. Mapping them in this way gives you a better idea of the demands you face from various groups. Complexity of your own matrix will depend on the business, but one thing is for certain: As supply management professionals, you must be able to manage priorities and act on those purchasing decisions that provide long-term value to the organization

Classification of green purchasing strategies



Benefits of Environmental purchasing

Evaluating products on a case-by-case basis will help you assess the environmental impact of your purchases. Environmental benefits include, but are not limited to:

- Reducing materials consumption
- Providing a useful outlet for recycled material
- Reducing greenhouse gas emissions
- Conserving energy
- Conserving water
- Increasing the use of renewable products
- Reducing the presence of toxic materials in the environment

Such benefits in turn:

- Improve public and occupational health and safety
- Improve wildlife habitats
- Decrease air, water, and soil contamination
- Improve compliance with environmental regulations
- Decrease costs associated with waste management, disposal, and cleanup
- Promote a sustainable economy
- Develop markets for environmentally preferable goods and services

So there is no doubt that by implementing a good EPP program, hotels can do much more to reduce their waste generation and increase savings. A first step in the right direction includes the following steps (developed by the City of San Francisco) to create an effective EPP program:

1. Assemble a green team
2. Establish a process of working together
3. Define the scope of the EPP initiative
4. Prioritize contracts to change
5. Research environmentally preferable alternatives
6. Revise bid specifications
7. Evaluate bids
8. Advertise the EP products to staff and conduct training
9. Solicit feedback from staff members about product effectiveness
10. Track and publicize success

India Companies in Practicing Green Purchasing

Green Procurement can potentially have huge benefits for India, both environmentally as well as economically, considering huge procurement, purchasing and consumption levels of the public, business and consumer sections. There are clear benefits for every section, from financial savings to 'green' image. There is already some movement towards green procurement in certain industries involved in the global supply chain. Some multinational companies have launched green procurement programs. Some dialogues and experience sharing has also taken place in India on Green Procurement or within the larger context of Sustainable Consumption and Production (SCP). The UNEP-MOEF Roundtable on SCP in 2006, and the CII-IGPN conference in January 2007 at New Delhi, was probably at the highest levels of influencers and decision-makers. The efforts now need to move further in developing proper policies and guidelines. India needs concerted efforts for a successful Green Procurement implementation. Nonsuccesses with schemes such as the EcoMark

provide interesting guidance on not just implementation but also how the government should be approach making Green Procurement Guidelines.

Case I:

In Delhi with a combined capacity of 16.47 lakhs kg gas per day, catering to about 90000 vehicles. This growing concern for the environment led to development in oil and gas exploration, refining and marketing. It also spurred development in the automobile sector which manufactured vehicles that could run on CNG fuel. Also the vehicles have to conform to pollution control norms as laid down by the Govt. like Bharat-III, Euro –II.

Case II: Surf-excel

Some kids in Mumbai's Bainganwadi slums are grateful to Surf-Excel, the Rs. 485cr brand which introduces a feel-good marketing campaign-The Surf Excel 10/10 drive. This saw the surf excel buyers in the four cities of Mumbai, Delhi, Bangalore and Kolkata SMS an amount to HLL (now HUL). The company in turn donates that amount to an NGO that was involved in educating underprivileged children.



Case-III: Ponds

The Rs. 355cr brand ponds of HLL, tied up with United Nations Development Fund for Women. For every flap of ponds cold cream mailed by the consumers, the company would contribute Rs2/- to the fund to fight domestic violence. Even though the proportion of ad spends from its Rs1000cr advertising and promotion budget have been minimal, HLL says most of its brands will look for long term strategic linkage with social causes.



Vice President Skin care, HLL, Ashok Venkatramani told CNBC-TV18, “if the activity is not housed in brand promise, than it looks like a charitable activity and in my view, those activities are difficult to sustain in long run. In our case, specific to fair and lovely, or even ponds, these are strongly housed in what the brand stands for and what brand promise is all about, hence they are easy to sustain and will reap huge benefits.”

Case-IV: Sunfeast:

Corporate social responsibility (CSR) is being used to build individual brands rather than the corporate brand. A case in point is the Rs.16000 cr ITC that ran their CSR campaign, about putting India first for its e-couple initiative two years back. Cut to the present, the company has linked the Sunfeast brand to its social forestry campaign, where the company chips in with 25 paise for every pack of Sunfeast biscuit and pasta sold and consumers, who buy the Atta brand, Aashirvaad, contribute towards ITC's rain harvesting campaign.



Divisional chief executive, ITC, Ravi Naware says, “Consumers like to connect with brand, if the brand is seen as a socially responsible brand, then consumers get an emotional connect that far beyond just usage of the brand and consuming it. It is this higher level of connect that were attempting to create through this campaign.”

Case-V: Tata –Salt:

Very recently Tata has launched a campaign through T.V advertising that if you will purchase Tata-salt, a significant percent of profit per pack would be contributed towards the education of underprivileged children of the slums. Marketing consultant and founder of Nobby, Nabankur Gupta adds, "product differentiation is completely drying up, service aspects are narrowed out, so the brand value question will come up in the durables sector as well. It will come up in the auto sector in my view. This will be very live issues as we move forward in time." But if from detergent to TV sets all brands chase consumers for a cause, there will be a clutter.

Conclusion

Making purchasing decisions with environmental impact in mind can lead to dramatic environmental improvements while delivering considerable cost savings. The green procurement process is part of a broader value chain and life cycle approach that takes into account an organization's activities, from sourcing, to operation and maintenance, to disposal. Lessons from these experiences should be examined and disseminated widely to business as a means for improving environmental management practices. Multinational companies and governments have a number of opportunities to promote green purchasing and to take advantage of the trends in globalization to improve the Environmental performance.

Bibliography

- Atkinson G., 2000. Measuring Corporate Sustainability. *Journal of environmental Planning and Management*, Vol.43 (2), 235-252.
- Abukhader M., 2005. *Towards horizontal environmental assessment for supply chain and logistics management*. Lund University.
- Bacallan, J., 2000. Greening the supply chain. *Business and Environment*, Vol. 6 (5), pp. 11-12.
- Chien K. & Shih, H., 2007. An empirical study of the implementation of green supply chain management practices in the electrical and electronic industry and their relation to organizational performances. *Int. J. Environ. Sci. Tech.*, Vol.4 (3), pp. 383-394.
- Green, K., Morton, B. & New, S., 1998. Green purchasing and supply policies: Do they improve companies' environmental performance? *Supply Chain Management*. Vol.3 (2), pp. 89-95.
- Guillermo M., 2007. *Supply chain integration: linking companies and processes together*. Department of Industrial Management and Logistics, Engineering Logistics, Lund University.
- Handfield, R., Walton, S., Sroufe, R., et. al., 2002. Applying environmental criteria to supplier assessment: A study in the application of the analytical hierarchy process. *Eur. J. Oper. Res.*, 141 (1), 70-87.
- Hall, J., 2001. Environmental supply-chain innovation. *Greener Management International*, Issue 35.
- Ivarsson, I, and Alvstam, C.G., 2004. International Technology Transfer to Local Suppliers by Volvo Trucks in India. *Institute of Economic and Cultural Geography*, (95)1, 27-43.
- Kushwaha, G. S., 2010. Sustainable development through strategic green supply chain management. *International Journal of Engineering and Management Sciences*, Vol. 1(1), pp. 7-11.
- Lo, S. and Sheu, H., 2007. Is Corporate Sustainability a Value-Increasing Strategy for Business? *Journal compilation*, Vol.15 (2), Blackwell Publishing Ltd, USA.
- Lowe, E., 1997. Creating by-product resource exchanges: strategies for eco-industrial parks. *Journal of Cleaner Production*, Vol.5 (1-2), pp.57-65.
- Min, H. and Galle, W., 1997. Green purchasing strategies: trends and implications. *International Journal of Purchasing and Materials Management*, Vol. 4, pp. 10-17.
- Plas, G., Erdmenger C., 2000. *Green Purchasing Good Practice Guide*, ICLEI, European Secretariat GmbH, Freiburg, Germany, pp.5-6.
- Rao, P., 2002. Greening of the supply chain: a new initiative in South East Asia. *International Journal of Operations & Production Management*, Vol. 22 (6), pp.632-655.
- Rao, P., & Holt, D., 2005. Do green supply chains lead to competitiveness and economic performance? *International Journal of Operations & Production Management*, Vol. 25 (9), pp.898 – 916.
- Sarkis J., 2006. *Greening the supply chain*. Spring-Verlag London Limited.