

The Perception of Producers towards Environmentally-Safe Products

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ABSTRACT

Economic change begins on the supply-side - Schumpeter

Attaining sustainable economic development requires carrying out the economic practices in an environmentally safe manner and convincing the society towards its large acceptance. A market economy requires structured development for environmental protection and this could be realized by promoting eco-friendly products. Although these products have been widely recognized, but their actual production, purchases and consumption have been disappointing. Environmental deterioration has become a major eco-societal and political concern in the contemporary era. If the conventional patterns of production and consumption are not changed, then such a phenomenon would prove detrimental to the environmental sustainability. Therefore, it requires immediate attention and corrective measures.

This paper seeks to understand the perception of the producers towards the eco-friendly products and their responsiveness in bringing forth the green products in the marketplace. The paper subsequently provides informed recommendations for the stakeholders to remedy the situation. The study is exploratory in nature and uses qualitative in-depth interviews and questionnaires to understand producers' responsiveness towards environmentally-safe products. It has been found that the stakeholders are aware of the environmental concerns, but they need to implement upon the recommendations, for the sake of making the environment clean and green for the present as also for the generations to come.

Keywords: Eco-friendly products, Producers' responsiveness, Environmental sustainability

INTRODUCTION

"To waste, to destroy our natural resources, to skin and exhaust the land instead of using it so as to increase its usefulness, will result in undermining in the days of our children, the very prosperity which we ought by right to hand down to them amplified and developed."

- Theodore Roosevelt

We all are the part of this planet Earth. The earth provides us everything that we need to survive and sustain therefore; we must live in harmony with it. We as humans need to keep our natural environment safe. A healthy natural environment is vitally

important for all eco-systems and it is our responsibility to protect it.

In the pursuit of economic development the level of the national economy has been improved but we have seriously damaged the environment. The world is awakening to the urgent need to protect the environment, to conserve the resources of land, air and water as nearly as possible in their natural states for the benefit of mankind.

Caring for the environment involves conscious efforts by every individual. Consumption and production of eco-friendly products is one of the desirable efforts we

can instigate. Eco-friendly, environmentally-safe, green products are collective names of products which are not harmful for the environment. Everybody wants to maximize the level of satisfaction by using diversified products but it is important to consider all the effects of goods and services produced and consumed. One can engage in eco-friendly practices by being more conscious of how the resources are used. Considering the supply side dimension of goods and services, the role of producers is vital in keeping environment green and safe for all.

Faster and cheaper should not be only criteria while manufacturing a product or evaluating an existing process line. Several other factors such as materials used in manufacturing, generation of waste, effluents and their treatment (or possible elimination), life of the product and finally, treatment of the product after its useful life are all important considerations. [1-2] Production Sector has been best placed to respond positively to sustainability challenges through radical innovative products and services and related new business models. Their drive for efficiency gives them a natural role in making production and products more resource efficient. [3]

Eco-Friendly Products: Producers' Responsibility towards Environmental Sustainability

Our Environment is our surrounding. For better environment, all its components should be protected from pollution and the surroundings should be kept clean. It is also necessary to ensure a balance between these resources and living creatures, while we meet our needs. One step to save our environment is to go green. Green products are those products having lesser or no adverse environmental impacts throughout the life cycle. Environmentally-safe products ensure not only the safe environment but also the health and safety of our families.

Companies are realizing that producing green products can help them

remaining relevant in the future business environment. Environmental concerns can be addressed through green initiatives in terms of production, servicing and manufacturing. Product packaging, advertisements, and other materials could also be made eco-friendly. Green production is a part of green business strategies that are based on the principles of environmental sustainability. It focuses on profitability through environment-friendly operating processes. These processes may constitute a key basis for competitive advantage in the coming decades. It is not just instituting pollution controls or recycling programs when manufacturing goods but it is about minimizing the harmful impact of the manufacturing processes on the environment, at every stage. Green production focuses on three fundamental goals –

- Minimize emissions, effluents, and accidents
- Minimize the use of virgin materials and non-renewable forms of energy
- Minimize the life-cycle cost (cradle to grave) of products or services.

About 62 million metric tons of solid waste (recyclable and non-recyclable) is generated per year in India. The per capita waste generation in Indian cities range from 200 grams to 600 grams per day (2011). [4] The current practice of waste management in India is both formal as well as informal. Green production practices have just taken off in India and the Government of India has an important role to play in ensuring the early adaptation of green production technology across various sectors and companies.

The Central and State government have launched many initiatives like Solar Mission to promote Green Energy. The Department of Industrial Policy and Promotion has included promotion of Green Technology in its Draft Strategy. Still it's a long run when India can fully embrace Green Production and be known as Green India!

For knowing the approach of producers towards adopting green products, the study was initiated. The following objectives laid the basis of the study:

- ❖ To study the perception and responsiveness of the producers for manufacturing eco-friendly products.
- ❖ To scrutinize ways of facilitating the flow of ecologically-protected products in the market in an efficient manner.

MATERIALS & METHODS

The present research is a quantitative as also qualitative study. The data was obtained from the producers using a survey method. The sample size includes 32 producers manufacturing/ retailing in the city of Agra. It has covered a range of industries including automobiles, chemicals, IT, food and beverages, paper, packaging, and some other industries and services. The purpose of this survey was to examine producers' point of view on the integration of environmental issues into their business and in new product development process. The five-point likert scale; where, 1=Strongly Disagree to 5=Strongly Agree has been used to know the perception and responsiveness of producers towards eco-safe products.

RESULT AND DISCUSSION

Producers' Responsiveness towards Development of Eco-friendly Products

The production process is concerned with transformation of various inputs into those outputs that are ready for customers to buy. It involves value addition at each stage of process which makes customers to pay more for it.

Global warming and reduction of green cover due to adverse manufacturing processes is becoming an important issue for all nations. Preserving the natural environment is on the mind of everyone but how far it is the part of action from the point of view of the producers is the central idea of the research. Through the survey, it was found that all producers knew about the eco-friendly products and green production but

their knowledge regarding the same is quite limited.

Figure 1 depicts the producers' gain on a seven-point rank scale and it reflects that they believe that producing green or eco-friendly products is helpful to make them popular and provides reputation. They believe that dealing with green products is not so cost-effective and it will not provide much of business opportunities. However, they consider that going green is now-a-days in trend and, adopting eco-friendly products would give them self satisfaction up to some extent.

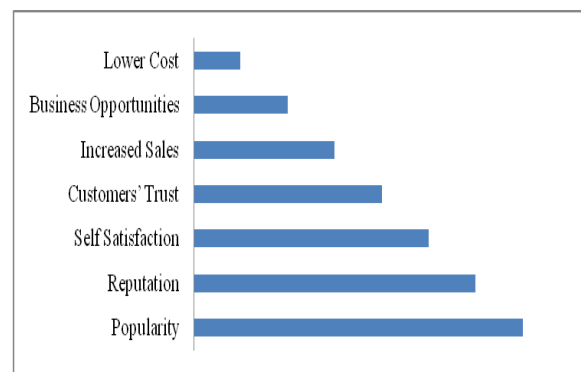


Figure 1: Producers' Gain through Eco-safe products

Producers believe that their production is greatly impacted by the demand aspect therefore, demand for goods and services can influence production of the same. Figure 2 expresses the opinion of the producers regarding consumer buying-behaviour. They claim that the consumers are less environment-sensitive and their purchasing behaviour is prone more towards necessity of goods and services. The consumers, however, prefer quality products over the price of a good.

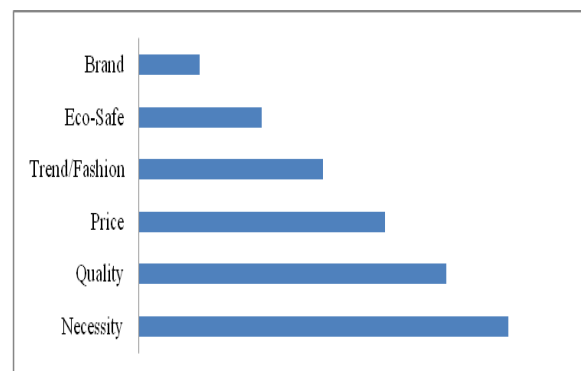


Figure 2: Opinion of producers on purchasing behavior of customers

There are several issues affecting the production of eco-safe products. The table 1 portrays the weighted mean score of

producers' perception concerning green issues and environmentally-safe products.

Table 1: Producers' Perception and Responsiveness towards Green Issues

S. No.	Green Issues	Weighted Mean Score
1	My participation in environmental activities today will save the environment for future generations.	4.69
2	Producers and consumers together can conserve the environment by adopting more of eco-safe products	4.16
3	Government policies can help in raising consumption of green products	4.03
4	More availability of green products in quantity, quality and variety will influence consumers to shift their demand to green products	4.01
5	Consumers are aware of eco-safe products	3.83
6	Consumers are self-motivated to buy environment-safe products	3.11
7	I am switching/ ready to switch to green production process/ green products for environmental reasons	3.05
8	I make efforts to provide and bring in more of variety in eco-friendly products	3.01
9	I try approaching for raw materials that are environment-friendly	2.88
10	I motivate my customers to make a choice for eco-friendly products	2.81
11	I keep available more quantity of green products than non-green products	2.69
12	Consumers are willing to pay more for environment-friendly products	2.31
13	I experience that dealing in recyclable products is cost-effective	2.06
14	Customers refuse for plastic bags and instead they carry/ accept a cloth bag or a paper bag	1.81
15	I am willing to lower down prices in favor of green products	1.38

The weighted mean score of the respondents' perception and responsiveness clearly depict that however, they understand the need of getting involved in the environmental activities, for the reason that it will save the environment for the future generations (4.69), but more or less, they have a neutral approach towards switching to greener practices (3.05). The respondents affirm that the consumers are aware of the eco-friendly products (3.83), but they are not willing to pay more for the environment-friendly products (2.31) and there is a disagreement on carrying cloth bags and paper bags by the customers while shopping (1.81). They have a strong opinion that the government policies can help in raising consumption of green products (4.03). They believe that more availability of green products in quantity, quality and variety will definitely influence the consumers to shift their demand towards buying green products (4.01), however, in the present times; they are not ready to lower down the prices in order to motivate the production and consumption of green products (1.38).

Gains to Production Unit on turning Green

Companies in general do not consider the environment or consumers' needs, rather companies struggle to build a

more sustainable supply chain. [5] It has been observed in the present study that producers are not much willing to produce more of green or eco-safe products. They are still not so aware of the gains of producing eco-friendly products. Brand enhancement, good reputation and better ability to attract and retain talent, abidance to regulatory norms, potential savings of cost in the long span, and increased customer retention are some of the benefits that the firms adopt in green initiatives. However, such benefits can only be reaped after a long term commitment to green production and manufacturing processes.

Ultimately money can be saved and a healthier environment could be promoted by implementing changes in the process design and energy usage, over a long period of time. Major consideration to sustainability issues and the health of our planet Earth have given popularity to the Sustainable products by a vast section of population. Certain values can be consciously promoted as early a business decides to become an environment-friendly manufacturer. The perspective of protecting the environment and enhancing technological innovation and progress are primarily focused on by these Values.

The figure 3 depicts specific areas where a company can leverage its green

production processes. As evident from the figure, green production offers margin improvements and also, revenue growth, at the same time. A stronger brand, improved

customer loyalty, supply chain optimization are some of the potential impacts of Sustainability efforts, that is, gains from green production processes.

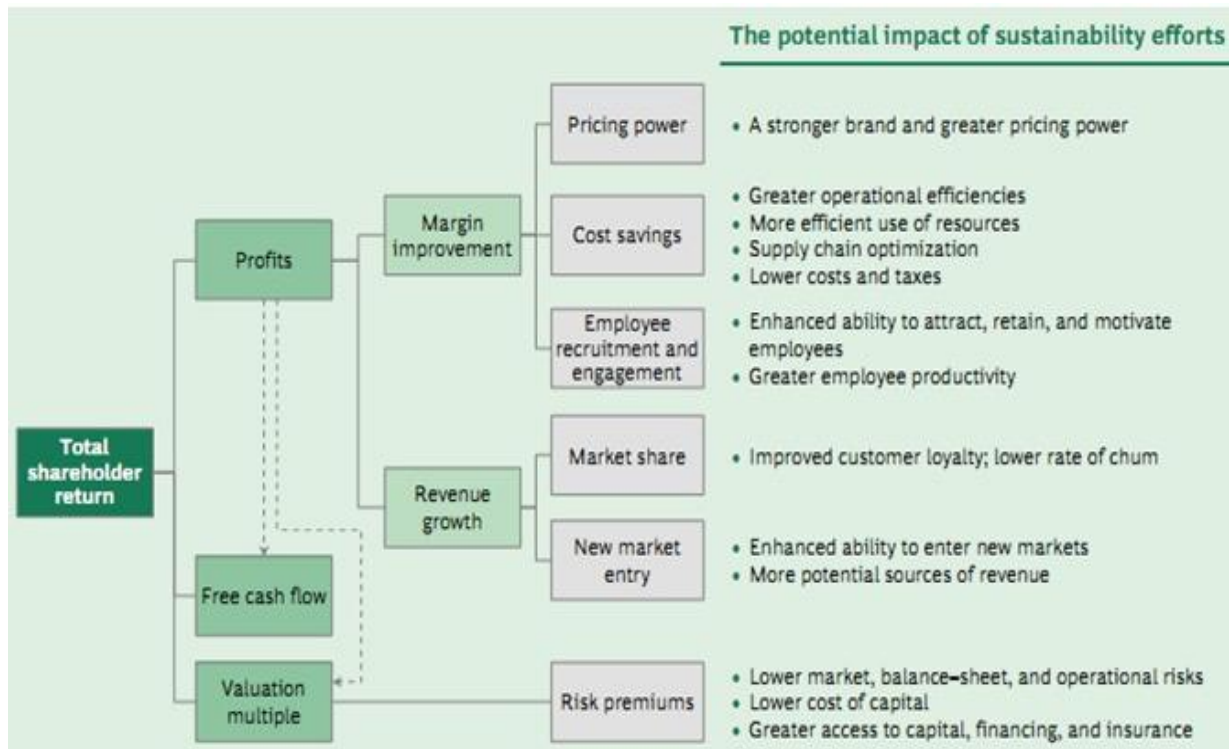


Figure 3: Gains from Green Production
Source: The Sustainability Initiative 2009 Survey, BCG and MIT Sloan Management Review

Mutuality between Production and Consumption

Not only is consumption possible without production; but also production will have no purpose without consumption. It is the consumption that creates the requirement for *new* production, which means that as a presupposition, it actually creates the effective reason for taking up production. No production is feasible without a need and it is the consumption that brings forth that relevant need.

The unrestrained consumption has been motivating endless economic growth. Overconsumption is one of the major causes of environmental degradation. There is a need to shift to a more sustainable consumption pattern and producers have power to mould consumption by creating the demand for products. Low costs goods can be produced but these have short span of life and can be discarded relatively

quickly. We need goods that can be well maintained and designed for long life spans.

The conscious production and consumption patterns can bring in economic prosperity, social inclusiveness and environmental sustainability. To accomplish sustainable development, it is imperative for consumers and producers to closely observe the lifecycle of products, in order to move towards a less consumptive economy. Such an initiation requires a concern to be made on the characteristics of the product and also, on the materials and production methods used in manufacturing the product, together with the energy usage requirements. It should also include the types of waste generated in the entire production consumption process. In the absence of proper production management economic progress will be threatened by environmental costs. It is vital to invest in green R&D which in turn supports green production through innovations, eco-safe

ways of distribution of goods and services. At the same time, eco-conscious consumers can help by shifting their demand in favour of green- products.

Ways to promote Eco-friendly Products

Environmental concerns about the disastrous effects on the environment and natural resources have prompted businesses and governments to reconsider their strategy for growth and economic development. [6] Prominent among the measures that governments can take are advancing Research and Development in favour of environmental technologies. Government can provide technical and financial assistance to the enterprises which focus on producing environmentally-safe products and adopting appropriate product standards and eco-labeling scheme. It will motivate consumers to shift towards eco-labeled products which eventually encourage manufacturer to design and market more green-products. Government can also support the nationwide distribution network of green products

Ecological tax reforms and initial subsidized eco-products can also help to keep green products prices reasonable. Carbon taxes that should be levied on the use of non-renewable energy and virgin materials, landfill fees, and other waste and pollution charges, provide an incentive to manufacturers for moving away from heavy use of fossil fuels, to boost energy and materials productivity, and to curtail the generation of wastes and emissions.

Another important tool that governments can exert is to emphasize green procurement. It will primarily increase the efficiency of the company and make the brand image of the company and customer retention rate will also increase. In addition the company will get long-term cost advantages and risk of environmental regulations can also be avoided.

Most material flows in industrial economies, including- waste materials, carbon dioxide and other emissions, and soil loss from farmlands, serves no useful purpose whatsoever and never actually

passes through the hands of any consumer. These hidden flows can be dealt by curtailing some of the most devastating activities, like -smelting, mining, and logging. Improvement in energy and materials efficiency, motivation for recycling and reusing, and prolonging the life-span of products must be accomplished, so that there is no requirement for extracting the virgin raw materials.

An emerging concept of Extended Producer Responsibility (EPR) has been globally adopted by a vast number of governments. The requirement of this law makes the firms to take back the products as soon as their useful life ends. The EPR, which means that the responsibility of a producer is extended to the post-consumer stage of the product life cycle, has been extensively implemented in Waste Electrical and Electronic Equipment (WEEE)-related laws and regulations in various countries. [6-7] EPR aims at inducing the manufacturers for checking through the entire life-cycle of their products and also their impacts on the environment. This will then, lead them to eliminate the unnecessary parts, and eradicate the unwanted and not so required packaging. This will also guide in designing products which can be easily dismantled, recycled, reused or may be remanufactured, as per the appropriate need.

The environmental impact of consumption can be essentially reduced if the products made are durable, repairable and upgradable. This will also lead to provide greater business opportunities and job potential all through the life of a product.

Taking up green manufacturing and making use of raw-materials that could be recycled, will be dearer to the production unit at an earlier stage. However, as soon as more of production of green products will be done over the non-green products, then the producers will be able to enjoy cost-effectiveness in producing green products. The production units dealing in same cadre of production should make certain kind of tie-ups. It could be like forming unions or

groups amongst the producers dealing in production of identical products to produce and supply eco-friendly products only. Borrowing of techniques and technologies from different foreign nations could also bring about a strong support and orientation for green products by the people of India. Producers are middle players in the chain as they lead environment-friendly forward linkage by supplying eco-friendly products manufactured through green processes to the retailers and at the same time, they can also help to make the backward linkage also ecological by purchasing only eco-safe raw materials and technologies for their manufacturing processes.

Eco-innovation is the development of products (goods and services), processes, marketing methods, organizational structure, and new or improved institutional arrangements, which, intentionally or not, contribute to a reduction of environmental burdens in comparison with alternative practices. [8] To achieve environmental sustainability without neglecting the goals related to economic growth, innovation in green products can be a key factor for companies. [9]

The human activities need to be assessed in a different way in a sustainable economy. Production of such qualitative goods must be done, which could derive better satisfaction to its customers, and those which minimize the energy and material use. Maximization of the quantity of goods produced and sold should not be the sole aim. Shifting the preferences towards green products from the earlier preference of non-green products of the producers requires government action, consumer education, and growing numbers of corporate trailblazers to make it happen.

CONCLUSION

Today, the businesses have started showing their apprehension with the environmental issues and so, they could be seen focusing upon the pro-environmental concerns. This has come up as a prospective strategic concern for the businesses. The

advertisers focus on environmental benefits while selling the products as they opt for green marketing. This emerging concept of green marketing has been encouraging the consumers to use eco-safe products and also, the manufacturers to produce more environmentally safe products.

On the part of producers, it was found that more of export-based production units were manufacturing eco-friendly products, it was found that there is still less demand for green products and the fervor to use and appreciate green lies low. It portrays lack of awareness, together with lack of initiation on the part of government to bring about eco-safe products and hence, environmental sustainability in the country. A lot of awareness through education needs to be created among the producers and consumers for changing the conventional buying and producing habits, for the sake of maintaining a Clean and Green India.

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