



GREEN SUPPLY CHAIN MANAGEMENT [GSCM] IN INDIA WITH SPECIAL REFERENCE TO LOCK INDUSTRY AT ALIGARH

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Abstract

Green Supply Chain Management [GSCM] is a buzz word in the modern day business management science. It has its implication not only on the health of people but an essential aspect of sustainable business practices. The article reviews this concept, briefly discusses the international scenario, and highlights the need for special analysis of the problems of smaller entrepreneurs working in crowded localities with meager infrastructure support from the State in developing economies.

Key Words: *Green Supply Chain Management [GSCM], ISO 14001, Lock Industry, Tala Nagri, Sustainability.*

Introduction

Taking into account the environmental factors in business practices is the philosophy behind the activities which have come to be known as green management.

Initially, the main emphasis was on the proper disposal of toxic substances and effluents released during the manufacturing process. The concept gradually widened to include the contents of the products which may have adverse effect on the health of individuals or on the environment in general. The packing material, which does not have immediate adverse health effects but has long term potential to pollute the environment, was therefore seriously taken up.

Now the entire process of production, including the methods of processing, packaging, storage, marketing, distribution, etc., come under the ambit of green management.

Because of its salutary effects, green marketing is also variously named as sustainable marketing, environmental marketing and ecological marketing.

Historical Development

The concept of green management started with the recognition of health hazards of environmental pollutants, such as toxic gases, toxic effluents, noise pollution, and other factors, which have direct or indirect ill effect on health of personnel involved in manufacturing processes. Initially it led to framing of rules and regulations to ensure proper working physical environment, proper disposal of wastes, proper packing material, etc. The manufacturers felt it as an economic burden to comply with the stringent laws that according to their perception were throttling their business activities. Therefore, many of them resented and many adopted ways to circumvent their legal obligations.

It gradually became evident that improvement in general working conditions and the salutary health effects on the workers had a beneficial effect not only on the business returns of the companies but had a positive impact on the State economy as well. So, gradually the concept of 'green conditions' in factories attracted the attention of owners and workers alike. With increasing awareness of health hazards of environmental degradation, people were willing to pay for the higher cost of production.

ISO Certification

ISO (International Organization for Standardization) is a non-governmental membership organization for Quality Management Certification [QMS] on International Standards (1). ISO 14001 is the most popular guidelines for Environment Management System (EMS). It was first published in 1996, and has since been internationally adopted for certification for green management facilities. While in developed countries the response to ISO 14001 certification has become mandatory, the adoption of ISO 14001 certification in developing countries is still to catch up because of several financial and organizational problems as will be discussed shortly.

International Comparisons

Serman et al (2) studied the state of adaptation GSCM in certain developed and under developed countries. They grouped these countries on the basis of their economic status, industrialization and Human Development Index (HDI). Their findings reveal that most advanced countries are adopting GSCM as per the guidelines released from time to time (such as ISO 14001 criteria). The driving forces for adopting GSCM include a general attitude towards a healthy society and legal and trade compulsions. This has become the general trend.

The situation in developing countries is different. China is possibly showing a better response with respect to GSCM practices. However, the adoption of GSCM practices is not uniform in China. (3) Liu et al (4) reported that frequent internal



assessment and proper training employees will have great impact on GSCM practices. GSCM practices in Malaysia are relatively new idea, and more in depth research has been suggested to examine the problem of developing countries (2). Only a few studies are available about current status and future prospects of GSM studies in India. The important ones are those by Meera and Chitramani (Tamilnadu), Kudroli (Karnataka), Velmurugan and Mrasath (Coimbatore), Dheeraj and Vishal (Rajasthan).

The overall picture emerging from studies in India has revealed the following situation.

1. Attention to green management has recently increased.
2. Green management is still in infancy in India
3. Information about India is lacking in adoption of GSCM/SSCM [sustainable supply chain management] norms.
4. More steps are required to be taken to increase awareness about the importance of green management not only to entrepreneurs but also to general public.

Lock Industry at Aligarh, India

Aligarh is located in Uttar Pradesh, about 140 km from New Delhi. The position at lock industry at Aligarh, India, is cited here because it depicts the situation prevailing in large number of small scale units situated in crowded locations in the country, and will throw light on special steps to improve its green-issues. Further, it is an industry handling very large number of toxic pollutants which may lead to serious disease.

Historically, the root of lock industry of Aligarh, India, dates back to late 19th century (about 130 years ago). Gradually this industry has grown extensively and has achieved reputation world over as an important source of cheap and reliable locks. At present there are innumerable numbers of small units or clusters engaged in this business. As per moderate estimates this industry employs more than 200,000 workers. From export alone, the turnover of the lock industry is to the tune of about Rs. 200 crores [312,565.93 USD] per year. Realizing the economic significance of this industry the state government has earmarked a special area popularly known as 'Tala Nagri' with the aim of improving the working conditions for this trade. However, it is estimated that every third house in the old-city will have some person associated with this industry. One study found that about 90 percent of the houses run the industry in their homes. While only about 1000 lock units were found registered, it was estimated that there would be about 5000 unregistered units. There are so many unregistered house-hold units that a correct estimate is difficult to establish.

It deserves to be pointed out that in spite of such dimensions of the industry, and its profound economic value, most of manufacturing units are small. The workers, in spite of their laborious work get a meager amount of approximately Rs. 6000/- per month on an average [less than 100 U.S. Dollars] while those working on contract basis get approximately 2/3 of that amount.

Because of the low economic status of the individual unit owners it is difficult for them to comply with international standards recommended for 'green management'. Their problems deserve to be taken in the light of human and social values, necessitating special government assistance to improve the working of this industry. Simply penalizing the poor entrepreneurs for violation of laws imported from advanced countries in the world, or those adopted by more affluent firms will not be an effective solution. Quoting the 'green management' principles adopted by world giants, like 'Wal-Mart' will be patently unfair to the small, financially strained units.

The situation documented in different studies is as follows:

1. Many units are functioning in narrow lanes
2. There are overflowing drains
3. Many industries are located in small houses which are poorly lit and have little ventilation
4. The air in and outside the houses is polluted due to generators
5. Noise pollution from prolonged running of generators is seriously damaging the hearing of workers as well as residents of the area
6. Long hours of power cut (some times up to 8 to 10 hours) adversely affects production
7. Safeguards against accidents at the production units are grossly inadequate
8. Several diseases, especially tuberculosis, are common among workers.

Difficulties in Implementing 'Green Management' in Developing Countries

There are certain genuine problems which need to be addressed. The green marketing exercises entail greater expenses. The larger companies can better afford these expenses while still attracting financially better off buyers by appropriate marketing strategies and by claims of better quality control. The buyers also have a tendency to go by the 'core value' (the 'company



brand') to make additional payment for the sake of their health. The larger companies may also resort to diversify their product line and create new markets for their products. On the other hand, the smaller entrepreneurs with weaker financial resources do feel the bite of extra expenses that they have to incur in complying with stricter norms under green management. These are some of the philosophical and social issues which should not be lost sight of, and which deserve to be thoroughly examined to address these problems of entrepreneurs with greater handicap and lesser resources at their command.

But all is not well with more affluent companies as well. There is an undercurrent of greed in a large number of business undertakings to save on expenses by not faithfully following guidelines issued by experts on 'green management'. Production of milk from chemicals, use of extra pesticides and antibiotics for increasing the expiry time, etc., are the glaring examples on record. The recent case of Maggi noodles is an example of widespread resentment against the business practices endangering the health of people.

Therefore it is reasonable to assume that some of those undertakings which have adopted 'green norms' may also may be doing it totally or partially unwillingly, or may have some genuine reason which deserve to be addressed.

Conclusion

Though GSCM is being adopted more and more in developed countries this concept in developing countries is still in its infancy. Among developing countries possibly China is showing better response because of government support, guidance and education of entrepreneurs and workers. Malaysia is also gradually picking up. The situation of GSCM in India has not been adequately evaluated and more in depth studies are required to analyze the problems of smaller entrepreneurs. The poor economic status of smaller business undertakings, not so conducive administrative management at the State level, and inadequate guidance of workers and entrepreneurs are the main factors hampering adoption of GSCM practice

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