

# GREEN SUPPLY CHAIN MANAGEMENT LINK BETWEEN BUSINESS AND ENVIRONMENT

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**ABSTRACT:** This paper aims to understand the green supply chain management practices likely to be adopted by the industrial concerns in India. Includes overview of green supply chain management, sport lights of green supply chain management and link between business and its environment. This paper also covered areas to green supply chain management practices ,that is product design,production,material purchases, packaging ,warehousing etc and financial ,environmental and social benefits of green supply chain management.

**KEYWORDS:** Green supply chain management, eco-friendly business environment, green logistics

## 1.1 INTRODUCTION

The number of organizations contemplating the integration of environmental practices into their strategic plans and daily operations is continuously increasing. Numerous initiatives have provided incentives for organizations to become more environmentally benign. Some of these regulation driven programs are mandatory, but increasingly numerous voluntary environmental programs are also introduced by organizations. Organizations view many of these environmental programs, which may include technological and organizational development projects, as possible alternatives for gaining or maintaining a competitive advantage. One environmental program area that continues to gain in importance is one that focuses on the external relationships among organizations. To help evaluate alternatives that will effect this relationship we present a strategic decision framework that will aid managerial decision-making. This decision framework is based on literature and practice in the area of environmentally conscious business practices. Moreover .consumers are becoming increasingly educated about the environmental impact of human activity.A global survey indicated that consumers are willing to pay higher prices for goods and services from companies that have environmentally-friendly business practices.

Increasing awareness about environmental protection in India and world, the green trend of conserving the Earth's resources and protecting the environment is overwhelming, thereby exerting pressure on industries in India and worldwide. Consequently, industries have shown growing concern for the environment over the last decade. Industrial environments have experienced drastic change and face competitive challenges. Recently supply chain management has directed its attention to the role of the supply chain in impacts to the natural environment. The supply chain is an integrated manufacturing process wherein raw materials are converted into final and finished products, then delivered to consumers or end user. An increasing number of supply chains invest in recycling systems intended to retrieve waste or used product from consumers.

## 1.2 SUPPLY CHAIN MANAGEMENT

Supply chain management is the oversight of materials information,and finances as they move in a process from supplier to manufacturer to wholesaler to retailer to consumer.In commerce, supply chain management (SCM), the management of the flow of goods and services, involves the movement and storage of raw materials, of work-in-process inventory, and of finished goods from point of origin to point of consumption.

## 1.3 GREEN SUPPLY CHAIN MANAGEMENT

Integrating environment thinking into supply chain management ,including product design, material sourcing and selection, manufacturing processes, delivery of the final product to the consumers, and end -of- life management of the product after its useful life. Green Supply Chain is a term used to describe a supply chain oriented for improved performance in measures of sustainability, cost reduction, emission reduction through the measure of the carbon footprint, and other metrics.

Instead of simply attempting to mitigate the environmental impact of the supply chain, GSCM involves driving value creation throughout the supply chain organizations to reduce total environmental impact.

While the specific goal of GSCM is often the reduction of CO2 emissions, other tangible benefits for an organisation include; greater efficiency of assets, less waste production, greater innovation, reduction of production costs, reuse of raw materials, increased profitability, perception of added value to the client base, and so on.

Integral to the success of Green supply chain management is the approach taken by each party to their upstream and downstream partners in the supply chain. A much greater degree of collaboration, transparency and integration of supply chain processes and systems is required for the initiative to be effective.

Manufacturing organizations have begun to implement green supply chain management practices in response to customer demand for products and services that are environmentally sustainable and that are created through environmentally sustainable **practices** and in response to governmental environmental regulations

#### 1.4 GREEN LOGISTICS

Green logistics describes all attempts to measure and minimize the ecological impact of logistics activities. This includes all activities of the forward and reverse flows of products, information and services between the point of origin and the point of consumption.

#### 1.5 NEED FOR GREEN SUPPLY CHAIN MANAGEMENT

- Increasing Environmental constraints due to global warming
- Corporate social responsibility
- Beneficial for organization
- Eco-friendly
- Increasing environmental awareness among stake holders
- Evolving consumer and client demand
- Response to increasing fuel prices

#### 1.6 IMPROVEMENTS BY GREEN SUPPLY CHAIN MANAGEMENT

- Improves operation by employing an environment solution
- Improves agility by mitigate risk and speed into innovation
- Increase adaptability by innovative process and continuous improvement
- Promote alignment by negotiating policies with suppliers and customers. Which results in better alignment of business processes and principles.

#### 1.7 SPORT LIGHT OF GREEN SUPPLY CHAIN MANAGEMENT

- Logistic and transport sector plays in reducing emission
- A quantitative picture of current sustainable supply chain practices and plans
- Measurement and quantification of how companies are managing complexities of supply chain demand ,distribution cost and environmental concerns
- A new integrated supply chain model takes into account that sustainability parameters such as CO2 emissions reduction, reduced energy consumption,better traceability etc
- An outline of the supply chain green initiatives currently implemented or planned in manufacturing,warehousing,and distribution

#### 1.8 AREAS TO GREEN SUPPLY CHAIN MANAGEMENT

- ❖ **Designing of product**  
An eco-friendly design leads to
  - Less material usage
  - Minimum operation
  - Proper use of computational fluid dynamic tools can used to reduce the exhaust emissions at designing level
- ❖ **Purchase**
  - Implementing green purchasing policies
  - Technical support to vendors to reduce the emission
  - Guidelines for usage of less hazardous material

- ❖ **Production**
  - Achieving economies of scale in production
  - Lean manufacturing approach
  - Fuel efficient tools and machine
  - Selecting less Carbon intensive energy source.
- ❖ **Packaging**
  - Mercury free
  - Non-toxic( minimize toxicity)
  - Recyclability
  - Hazardous waste consideration
  - Durability or re-usability
  - Energy efficient
- ❖ **Logistic**
  - Optimised truck load
  - Direct shipment to customers
  - Routing of distribution
  - Reverse logistics

## 1.9 ENVIRONMENT AND SOCIAL IMPACT OF GREEN SUPPLY CHAIN FUNCTION

### 1. Financial benefits

- Increased revenue
- Reduced cost
- Increased asset utilization
- Enhanced customer service

### 2. Environmental benefits

- Reduced waste
- Increased energy efficiency
- Reduced Air emission
- Reduced water emission
- Reduced Fuel consumption

### 3. Social benefits

- Reduced community impact
- Noise reduction
- Traffic congestion avoidance
- Health
- Safety
- Security

## 1.10 CONCLUSION

The concept of green supply chain management is to integrate environmental thinking into supply chain management (SCM). As such, Green supply chain management is important in influencing the total environment impact of any organizations involved in supply chain activities. More importantly, green supply chain management can contribute to sustainability performance enhancement. In this paper, we focus on the environmental collaboration, which has been seen as a key relational capability to facilitate the green supply chain management strategic formulation and execution. Traditional Supply Chain Management focuses on Total Quality, optimum Cost and best service which in some way contributed to environment. Today's Green Supply chain management mandates to incorporate the environmental idea in each and every stage of the product and service in a Supply Chain. Hence Supply chain managers have a great role in developing innovative environmental technologies to tackle the problems faced by the economy on environmental problems and communicate this to every stake holder in the chain. Lean Manufacturing is eliminating waste in every stage of supply chain. It focuses on producing economically and environmentally friendly quality products which meets the customer expectation.

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