

How our industries can benefit from green supply chain management

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The stability of the global climate has been jeopardised by the planet's ever-changing character. As a result, green (i.e., environmentally responsible) supply chain management (GSCM) solutions are gaining favour across industries in an effort to mitigate their negative environmental impacts. Bangladesh is still lagging behind in implementing green supply chain management practices, while being one of the fastest-growing economies.

The global textile and leather industry have been identified as being among the most prominent sectors to implement GSCM. The textile and leather industry of Bangladesh are the major industries in terms of earning foreign currencies. Despite huge economic potential, these two industries are under immense pressure to minimise pollution and improve sustainability performance. The pressure is coming from different stakeholders including the government, local and foreign buyer groups, local and global environmental groups, and environmentally conscious communities. Their industrial performance and manufacturing activities have been condemned for a long time because of the damage that they cause to the environment. These negative effects include polluting the water by releasing toxic waste into nearby rivers, a high rate of waste production, an abundance of toxic chemicals in the production process, and poisonous substances. The usage of such material increases not just the environmental concerns, but also the breadth of greenhouse gas emission, clean water contamination, health issues, among others. Therefore, these industries urgently need to minimise environmental pollution and improve sustainability performance.

By integrating green supply chain strategies, all of the aforementioned challenges can be addressed. GSCM refers to the integration of environmental thinking into supply chain activities. Its aim is to enhance environmental performance. Supply chain is not a specific concept; rather, it encompasses a vast array of operations. Transferring information, raw materials, and items from suppliers to consumers is the primary function of the supply chain. The supply chain management process oversees the procurement of raw materials, production, stockpiling, inventory management, order entry management, and distribution route management. Adoption of GSCM practices is highly relevant in the context of Bangladesh and its leather and textile industries. In Bangladesh, the following green supply chain management practices are recommended:

Industrial symbiosis: It is the mutual exchange of waste between firms in different industries. Here, one company produces a product by using another company's waste or by-product. For example, Favini, an Italian paper company produces paper using a by-product of leather, which was previously considered as waste.

Life cycle assessment (LCA): It is performed to evaluate the environmental performance of a product across its entire life cycle, from the manufacture of its raw materials to its disposal after use. LCAs for environmental effects usually require data from life cycle inventories and open communication among players in the supply chain.

Green manufacturing: Aims to establish a cleaner production process by reducing the use of toxic chemicals, eliminating carbon emission, minimising environmental pollution, and less wastage. Re-manufacturing and lean processes are also included.

Green packaging: It is environmentally friendly packaging. The use of biodegradable materials, returnable, reusable and recyclable packaging are essential features of green packaging.

Green purchasing: It refers to the selection of products and suppliers based on environmental criteria. Green suppliers should be selected on a priority basis. Firms should have tools and techniques to study alternative suppliers and rank them based on environmental performance and select the top performer.

Internal environmental management: Internal environmental management aims to design the organisations to improve environmental performance. Firms can adopt ISO 14001 Certification system which drives towards environmental planning including environmental training programmes for employees, and reinforce environmental initiatives by providing incentives.

Customer and supplier collaboration: Collaboration with upstream and downstream supply chain parties helps building processes with an aim to develop environmental management systems, share possible eco-friendly techniques and monitor supplier's operations, reverse flow of materials and packaging, reduce or eliminate waste, etc.

Green design: This practice helps to design all the processes as eco-friendly, reduce negative effects, adapt reuse or recycle practices, etc. Low resource consumptions, recoverable materials and component part design, zero waste mechanisms, natural dyeing techniques, slow fashion techniques are examples of green design execution criteria.

Green branding initiatives: Manufacturers such as Patagonia, Stella McCartney, and Loomstate can focus on environmental sustainability (e.g., products from organic cotton, recycled cotton, recycled polyester, and vegetable tanned organic leather) are promoting green branding. These green brands are integrating environmental sustainability into their core brand strategies in order to obtain market advantages and maximise their financial returns.

Green marketing: This concept deals with products, the production process, the manufacturing industry, and the entire supply chain in order to promote the mass market. "Ethical consumption attitudes" must be clearly communicated throughout the marketing of eco-friendly products through both internal and external aspects. Green marketing could also be successful by releasing massive amounts of environmentally friendly products onto the market.

Green logistics: Green logistics means environment friendly transportation and distribution that aims to minimise carbon emission, use of green fuel, reuse and recycle logistic wastes, etc.

Despite the fact that these mentioned practices are not yet widely adopted, implementing them will assure the long-term prosperity and success of Bangladesh's textile and leather sectors, both domestically and globally.

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