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# Green Supply Chain: A Sustainable Option to Serve Mindful Consumers

**N Gupta[1] and Sharad Gupta[2]***

[1]*Delhi Technological University, India*

[2]*Cardiff Metropolitan University, UK*

***Corresponding Author:** Sharad Gupta, Cardiff Metropolitan University, UK.

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The concept of green supply chain is fast gaining momentum, because of the environmental concerns. The 6 R's namely Reduce, Reuse, Recycle, Rethink, Refuse, and Repair are securing importance. A new concept of remanufacturing is also coming up Due to limited availability of natural resources, there is constant demand to *reduce* consumption [1]. The manufacturers are constantly taking account of the environmental concerns while designing supply chains. The green supply chain management (GSCM) primarily emphasizes on reducing the waste generation and *reusing* the waste. GSCM is "integrating environmental thinking into supply chain management, including product design, material sourcing and selection, manufacturing processes, delivery of the final products to the consumers, and end-of-life management of the product after its useful life" [2].

Furthermore, emphasis is given on returning the products after use to achieve the target of zero waste generation [3]. Reusing plastic bottles, tin cans, plastic bags etc. are part of *recycling* strategy. Also, the concept of cleaner production and green manufacturing are being adopted by mass manufacturing units, as important tools of implementing GSCM. The emphasis here is on reducing $CO_2$ emissions and decreasing the use of harmful and toxic chemicals to mitigate their adverse impact on the whole supply chain [4-6].

The segregation of waste into different components as wet, dry, papers, metals, glass etc. helps in recycling. *Rethinking* the packaging processes to reduce packaging waste and facilitate easier recycling leads to green packaging, which is also a part of green supply chain. Several big automotive companies are following green practices in supply chain to decrease carbon footprint and earn carbon credits. For example, electric (green) cars are sold at discounts by car companies after using government subsidies to promote green transportation. Similarly electric (green) trucks are being developed for transporting goods from manufacturers to consumers as a part of GSCM [7-8].

The green supply chain aims at confining the wastes within the industrial system to conserve energy and prevent the dissipation of harmful materials into the environment. The green supply chain is also a step to achieve concept of Industry 4.0, which advocates for computer-based integration of different processes and services in an Industry. Environmental concerns are very important in Industry 4.0 [9-11], which also helps in achieving circular economy for greater sustainability [12].

GSCM is important to serve the changing needs of consumers who are more mindful than ever [13, 14]. These consumers seek sustainable buying options in different buying situations [15-16] and consume mindfully [17]. These consumers *refuse* to incessant advertising messages despite engaging highly with social media promotions [18-19]. Such consumers consider *repairing* as an alternative to buying afresh while considering the online reviews [20] as well as augmented reality enabled shopping environment [21].

Due to increasing consumer mindfulness [13, 22], companies' sustainability orientation has shifted from just being treated under CSR activities [23] to green marketing in last decade [24] and now to mindful marketing [25]. This necessitates companies to focus on user-centered design [26] for their production and GSCM plays important role in executing such circular consumption-oriented production [25]. Future research may extend in multiple directions in engineering as well as management fields. The most promising area is amalgamation of application of GSCM for mindful marketing. Research may extend this sustainable option of GSCM to serve the

evolving mindful consumer who is more aware and does not get so overwhelmed by marketing influences as before.

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