

Essential Elements for a Greener Supply Chain Network

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Essential Elements for a Greener Supply Chain Network

While the collective world takes notice of thriving industries & the plethora of opportunities it unlocks, we somehow manage to oversee the ripple effect a development process might have on our planet, its resources, and its inhabitants. With climate change & global warming becoming more than a staple point of conversations – conglomerates have now started to take corrective measures to offset their carbon footprint. And, with the supply chain network of an organization amounting to 5.5 times the GHG emissions compared to its rest of the operation, it was only evident that the entire logistics process needed an optimized & sustainable overhaul.

This is where the green supply chain network application has gathered much-needed momentum. By definition, a green supply chain focuses on using sustainable renewable energy for its operations while improving the optimization of its assets & resources. By harboring the principles of sustainable supply chain management, a company becomes aware of its environmental, economic & social impact while embracing the necessary changes helping them contribute to a more significant cause. Most importantly, employing eco-positive changes improves productivity, increases efficiency & subsequently benefits with better margins.

Below are the essential elements of a green supply chain network.



Green Procurement

The first step of every supply chain is obtaining raw materials. And, since our focus is building a sustainable supply operation, we start with green purchasing. Green Procurement or green purchasing covers the procurement of reusable, recyclable products devoid of any hazardous impact on people & environment. While earlier, procurement decisions were driven from a financial point of view without comprehending a raw material's climate impact, valid concerns regarding the world now emphasize an organization's raw material proposition.

Also termed Environmental Preferable Purchasing, employing renewable material for production conserves energy and prevents pollution owing to its natural properties. The green purchasing concept at an industrial scale reduces its ecological footprint and enhances a company's brand value as an institute focused on caring for society and its habitat. From a business perspective, a green procurement policy, apart from proving to be an asset from a financial point of view, pushes parameters of improved employee health & safety while upping workforce engagement towards a globally beneficial cause.

Green Design

A green or sustainable design encapsulates a product schema that is friendly in its application and environmentally considerate during its product life cycle. Exercising green design promotes sustainable consumption amongst userbase while keeping regard for all life forms inhabiting our planet. This generally involves adapting ideas that are harmless in their application and responsibly foresighted with their impact on nature.

This also proves to be an analytical approach in the context of the rapidly decreasing resources of our planet. With such challenges pushing industries to constantly innovate and adapt to keep their operations relevant in the working equation of supply & demand – investing in sustainable design practices helps a sector cope with its forecasted demands while efficiently minimizing scope emissions during its product life cycle. From a broader perspective, a green design houses the safety quotient of the workforce involved in the production phase while concurrently nullifying problematic issues of environmental pollution, improper waste management, hazardous material usage, and product users' safety.

Green Manufacturing

Green Manufacturing refers to the production process employed by an enterprise with low environmental impact. This involves efficient methods that generate zero to no pollution and maintain ecological balance throughout production. For green manufacturing proceedings to work, it requires appropriate renewable materials and tech, which keeps the key supply chain stakeholders up to date with the course of action.

With such a reformed application leading the supply chain operations, it aids a company in lower raw material costs, enhancing efficiency, creating environmentally & employee-friendly infrastructure, and improving corporate image.



Green Operations & Reverse Logistics

The following titular process covers respective functioning from manufacturing to logistics. This involves the application of advanced data analytics, which helps an organization employ optimized practices in the form of load optimization, route optimization, and following regulatory compliances, all directed towards reducing carbon footprint.

Reverse logistics expands on the green supply chain operations by handling components or products at the end of their life that can be recycled, reused, refurbished, and in some cases, used for remanufacturing purposes. Implementing green operation management requires technical assistance, mainly through life cycle assessment modeling, which offers workable data to help an organization make informed decisions. With transparency in work operations now considered one of the most influential driving factors for customers, projecting one's own greener operatives method does help garner some good word of mouth to edge out the competition.

Waste Management

The last but crucial step of the green supply chain network, waste management, looks after the critical aspect of preventing waste generation at every stage of the supply chain. This mainly covers offsetting any harmful by-product during any supply chain vertical operations. The focus is on 'prevention' rather than the 'removal' aspect of waste management. One such way is to account for the whole life cost of the setup placed in a supply chain operation, including disposal cost, especially if any equipment poses green challenges. The goal is to have minimum waste and create a healthy work setup that promotes social, economic, and environmental betterment for future generations.

Benefits of Green Supply Chain Network

Apart from showcasing your company as a trendsetter in go-green initiatives, a green supply chain network highlights the crucial contribution the collective industries must strive for to tackle global climate challenges.

- **Reduced Environmental Impact:** The core reason for its existence, a sustainable supply chain reduces greenhouse gas emissions and puts your organization on a roadmap to offset its carbon footprint. A green network further focuses on reducing waste and includes efficiency protocols which, when sustained, eventually lead to better profit margins & better supply chain output.
- **Enhanced Brand Value:** Your reputation will precede you whenever a conversation about a green supply chain network is at the centre spot. The PR quotient of your company as a responsible caretaker and a sustainable inventor matches a chord with userbase, both existing and upcoming.
- **New Opportunities:** In today's networking and working partnerships, associating with an environmentally conscious organization is a top priority for a leadership group. This leads to more scalable opportunities from a business perspective and presents new ventures for like-minded stakeholders.
- **Efficient & Cost-effective:** With infrastructure running on energy-efficient principles, the operative cost of an organization in terms of the utility of resources is low compared to the usual supply chain operation. In addition, many countries' governments provide special tax rebates and better compliance for smoother operation of a green supply chain network.

3SC & its Sustainable Services

3SC, with its sustainable platform CarbonX, helps businesses reduce their carbon footprint by comprehensively monitoring, analyzing & designing a roadmap for decarbonization. Our solution aids companies to stay on course for achieving their sustainable development goals (SDGs) while keeping up with the revenue-driven growth model.



Give your business the competitive advantage of intelligent and comprehensive supply chain solutions with 3SC. Driven by AI and ML, our Supply Chain Analytics (SCA) and Supply Chain Execution (SCE) platforms enable you to seamlessly tap into potential market opportunities. We do this by enabling easy scalability, complete visibility and improved collaboration between all supply chain stakeholders and partners.

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