

IT APPLICATIONS IMPROVING GREEN SUPPLY CHAIN EFFICIENCY OF BUSINESSES AND INDUSTRIES

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Abstract

Manufacturers today face three significant organization-related challenges: maximizing profits, conserving cash flow and creating shareholder value. According to consulting firm TMG-IMC, North America, process of EBITDA (earnings before interest, taxes, depreciation and amortization) optimization is an effective strategy for achieving environmental sustainability.

Citing statistics that show a company's supply chain performance and production performance have a 56% impact on cost of goods sold (COGS) and a 35% impact on sales, general and administration (SG&A) expenses. This paper highlights latest developments in implementing IT applications in supply chain management practices towards making green supply chain management more effective and environmental friendly in various industries.

Key words: *Reducing carbon, greater efficiency, carbon footprint, optimal supply chain organizational, monitors the contracts.*

Introduction

Wal-Mart had always focused on improving sales, constantly reducing costs, adopting efficient distribution and logistics management systems and using innovative information technology (IT) tools. According to analysts, Wal-Mart was able to achieve a leadership status in the retail industry because of its efficient supply chain management practices. Reducing carbon in the life cycle of a company's products reduces energy use, greater efficiency and, with the rising cost of energy, lowers costs, making business stronger and more competitive. This helps suppliers to reduce their energy use, costs and carbon footprint.

The program to reduce GHGs has three main components namely:-

- **Selection** -- Focus on the product categories with the highest embedded carbon. This is defined as the amount of life cycle GHG emissions per unit multiplied by the amount the company sells. This approach ensures the project team focuses on the categories that have the greatest opportunity for reductions. Reductions can come from any part of a product's life cycle.
- **Action** -- For a project to be included as part of this goal, it must reduce GHGs from a product in either the sourcing of raw materials, manufacturing, transportation, customer use or end-of-life disposal.
- **Assessment** -- Suppliers and companies will jointly account for the reductions. Clear Carbon will perform a quality assurance review of those claims to ensure methodology, completeness and calculations are correct.

9 Best Practices for Improving Supply Chain Efficiency

[1] Properly Staff the Supply Chain: Optimal supply chain organizational methods vary by company, but may include a centralized operation or containing the process within departments. Regardless, it's essential to ensure the supply chain is properly staffed, as is educating and improving the supply chain management skill level of the staff.

[2] Appoint a Governing Body: Give your supply chain strategy a sense of direction and help to align in with the overall organizational goals by establishing a supply chain council. This can help the supply chain organization get the recognition it deserves and remove barriers standing the way of success.

[3] Invest in Technology: Assess your processes to look for deficiencies, and then search for technology that can meet those needs instead of adopting processes to fit the technology. Technology should produce useful data that can be accessed easily.

[4] Forge Alliances with Top Suppliers: Work closely with your suppliers to keep the lines of communication open and continuously work together to reach shared performance goals. The communication should run in both directions which make problems easier to solve and make use of talent and expertise of the supplier

[5] Focus on Strategic Sourcing and Total Cost of Ownership: Strategic sourcing is essential to maintain a successful supply chain procurement process. Allow internal customers to participate in the decision-making process to ensure the availability of supplies and reduce total costs of ownership – operating, training, maintenance, warehouse and other related expenses.

[6] Let Supply Chain Team Manage Contracts: A failure to communicate contract terms and monitor compliance often causes companies to spend more than necessary, so move contract management to the supply chain group to simplify the process and make it more efficient and easier to monitor the contracts.

[7] Optimize Inventory Levels: Constantly review inventory levels to ensure they're kept at optimal levels, as holding more inventory than necessary can result in significant costs. Better planning and forecasting can help keep inventories aligned with the company's needs.

[8] Create Risk Management Policies: Prepare for the unexpected by establishing proper levels control to manage and minimize risk. Periodically review these policies to ensure they remain

efficient. Among the areas mitigation strategies should weigh are: calculating the financial impact, determining risks and their likelihood of occurring and setting a priority for monitoring the risks.

[9] Incorporate “Green” Initiatives and Social Responsibility: These days, it’s essential to do everything possible to reduce your carbon footprint, because you may lose business if you don’t. Additionally, people expect companies to adhere to a certain level of social responsibility with policies that can be measured. Companies that don’t are at risk of enduring major criticism.

Conclusions

IT can transform high-technology companies into green enterprises by enhancing the economic and ecological impact of operations. Green IT can accelerate product innovation, minimize costs and mitigate risks, while reducing the carbon footprint. In present economic scenario, organizations are trying to achieve sustainable competitiveness in global markets. Sustainability incorporates the concepts of economic, social, and environmental performance. Green supply chain management (GSCM) practices comprise green design, reducing energy consumption, reusing/recycling material and packaging, reverse logistics and environmental collaboration in the supply chain. An effective supply chain procurement process is essential to the success of every company. It’s important to continuously examine practices used to ensure they’re the most effective way to maximize efficiency.

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