Green supply chains improve performance

Manufacturers could gain broad benefits from environmental practices aimed at enhancing environmental performance throughout the supply chain. As well as improving environmental performance, new research shows that collaborating with suppliers on environmental practices improves manufacturing performance across three key indicators: quality, delivery and flexibility.

Increasingly, manufacturers seeking to improve environmental sustainability are extending their efforts across the supply chain, both upstream to engage their suppliers and downstream to involve distributors and consumers. This often means establishing collaborative environmental management programmes aimed at aspects such as joint environmental goal setting, sharing technical information, shared environmental planning and working together to reduce pollution or other environmental impacts. Such processes improve the understanding between organisations of their respective responsibilities and capabilities associated with environmental management.

In the North American package printing industry, research shows that upstream environmental collaboration (collaboration in early stages of the manufacturing process) led to improvements in process-based performance, such as superior delivery and greater flexibility from suppliers. Engaging in joint goal setting improved both the speed and reliability of delivery. Other research suggests that this type of improvement may also lead to enhanced financial performance.

Downstream collaboration, with customers and distributors later on in the manufacturing process, led to product improvements, such as improvements in durability and conformance to specifications. A degree of competitive advantage could be gained by involving downstream stakeholders through, for example, developing the capacities of the organisation. Collaborating with customers also fostered improvements across the broader supply chain network. Collaboration on environmental issues with customers may also stimulate organisations to evaluate product quality, improving the overall performance of their products and reducing scrap rates.

This study suggests that environmental performance can be improved by active collaboration with customers and suppliers. Other studies have also found a strong link between involving external stakeholders in the implementation of environmental management systems such as ISO 14001 and the degree of competitive advantage gained by ISO 14001 certification. Involving external stakeholders fosters the development of innovative solutions to environmental challenges which may have wider benefits to the organisation.

Environmental management practices continue to evolve, with companies implementing green purchasing policies, reverse logistics and product stewardship practices. This study highlights the benefits of these practices, in terms of manufacturing and environmental performance.

Additional information: Ways that business sectors can profit from improved environmental performance throughout the supply chain are also demonstrated by numerous projects co-funded under the EC’s LIFE programme. Lists of relevant projects, videos, articles and publications featuring their results can be found in the thematic section on Environmental Management on the LIFE website: http://ec.europa.eu/environment/life/themes/management/index.htm.


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