

# Science for Environment Policy

## Greening supply chain management: the role of legislation

**Mandatory legislation** can play an important role in managers' decisions to keep their supply chains 'green', according to a recent survey of Greek businesses which investigated incentives driving investment in green management practices.

**Green-Supply Chain Management (G-SCM)** incorporates environmental processes into the management of businesses that are linked together to provide products and services to customers. G-SCM includes areas such as product design, material sourcing, manufacturing processes, delivery of the final product to consumers, and end-of-life product management. To date, there is limited information on what drives managers to undertake G-SCM practices, in particular, the effects of environmental policy on decision making at the managerial level.

In this study of small and medium sized Greek businesses, a questionnaire was completed by 62 business managers in the industrial zone of Thessaloniki. The questions covered how much the managers knew about, and were implementing, environmental management practices; the managers' views on how important different environmental policy instruments were on their decisions to adopt G-SCM practices; and the managers' preferences for greening different areas of their supply chain.

The majority of respondents considered the greening of the supplier and the selection of environmentally-friendly materials to be important practices. The results showed that the preferences for different green strategies varied according to sector. For example, managers in the food industry and textiles devoted more attention to strategies concerning environmentally-friendly raw materials, whereas managers in the service industry had a preference for green suppliers.

Nearly half of the respondents did not find it important for their businesses to cooperate with customers to return packaging or provide a disassembly service, to reuse materials, to incorporate environmental criteria in the design of products, or to use recycled material in any operational stage of the supply chain. The researchers suggest that this is because the managers perceive a lack of benefits from these practices.

According to the study, managers carry out G-SCM practices as a result of mandatory regulations, with low environmental taxes and subsidies playing a key role. Managers who prioritised cost savings and increased market-share considered it very important that their supply chain was green. In addition, managers who considered cooperation with consumers to return packaging to be important, also value the incentives for doing this, i.e. low taxation, subsidies and cost savings. The higher the input of public advisory services for G-SCM practices, the more willing managers were to select green suppliers.

Although the findings suggest that environmental legislation has a varied impact among different business sectors, the results give an insight to policymakers on the importance of environmental legislation in driving green changes to the management of supply chains.



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