

Міністерство освіти і науки України

Національний університет харчових технологій

**80 МІЖНАРОДНА НАУКОВА
КОНФЕРЕНЦІЯ
МОЛОДИХ УЧЕНИХ,
АСПІРАНТІВ І СТУДЕНТІВ**

*“Наукові здобутки молоді –
вирішенню проблем харчування людства
у ХХІ столітті”*

Частина 4

10–11 квітня 2014 р.

Київ НУХТ 2014

62. Development process of green logistics

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Introduction: Logistics is the integrated management of all the activities required to move products through the supply chain. For a typical product this supply chain extends from a raw material source through the production and distribution system to the point of consumption and the associated reverse logistics. The logistical activities comprise freight transport, storage, inventory management, materials handling and all the related information processing.

The main objective of logistics is to co-ordinate these activities in a way that meets customer requirements at minimum cost. In the past this cost has been defined in purely monetary terms. As concern for the environment rises, companies must take more account of the external costs of logistics associated mainly with climate change, air pollution, noise, vibration and accidents. This research project is examining ways of reducing these externalities and achieving a more sustainable balance between economic, environmental and social objectives.

Resources and methods: Green logistics describes all attempts to measure and minimize the ecological impact of logistics activities. This includes all activities of the forward and reverse flows of products, information and services between the point of origin and the point of consumption. It is the aim to create a sustainable company value using a balance of economic and environmental efficiency. Green logistics have its origin in the mid 1980s and was a concept to characterize logistics systems and approaches that use advanced technology and equipment to minimize environmental damage during operations. Organizations have to face changing circumstances for several years. In addition to increasing diversity and dynamics, environmental issues become more important. Social, political and

economic demands for sustainable development force organizations to reduce the impact on the environment of their supply chains and to develop sustainable transport and supply chain strategies. There are strong interactions between logistics, environment and natural resources. In addition, the approach of logistics is interdisciplinary, holistic and cross-company. Realizing environmental objectives can be done in synergy with other strategic and financial goals. This is the basis of the great potential of this new logistics problem and challenge. The "ecological concern" in logistics determines how far the logistics or the supply chain of a company is faced with the issue of environmental protection and resource conservation. Basically, a supply chain is affected of various influencing factors in this context. The main influencing factors are the stakeholders of the organization and the rising costs of energy and commodity. Some of the key stakeholders in this context are: the state with growing international and national regulations, customers and consumer with increasing awareness and demand for ecofriendly products and (logistics) services, employees who want to work in an environmentally and socially responsible company, society with increasing claims for more corporate social responsibility (CSR), companies themselves. There is also the pressure of lenders, investors, insurers and investors. Indications of this are new forms of investment in the capital market, such as the Dow Jones Sustainability Index, that tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria. The dimension of ecological concern of a company is the product of these complex and varying factors.

Results: Logistics involves the movement of products from every step between raw materials and end consumer of a finished product. One of the key focuses of logistics is delivering a product which will satisfy consumers at the lowest possible cost, and a variety of creative measures can be used to cut costs and reduce overall costs. Supply chain management, warehousing, retailing, manufacturing, and safety inspections are all a part of logistics. In the case of green logistics, all of the issues which pertain to regular logistics still apply, with the added factor of environmental friendliness. Sometimes, making products environmentally friendly also happens to play into economic concerns. For example, a beverage manufacturer could reduce the use of plastics by making thinner bottles, thereby cutting down on shipping costs. In other instances, making a product environmentally friendly may cost more, causing it to come into conflict with traditional logistics.

Conclusions: Green logistics consultants are the logical choice to help your company or authority to develop a sustainable logistics and mobility strategy and to realize major cost reductions and eco-efficient transport, logistics and supply chain improvements. Road congestion, urban mobility, local air pollution and the need for CO₂ reductions and energy conservation will have a dramatic impact on the future supply chain of all industries and public transport systems. Realizing environmental objectives can be done in synergy with other strategic and financial goals. A green logistics or green supply chain policy often reduces logistics costs as it focuses on reducing energy use and on improving the total supply chain.

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