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Vensko A., Kastsianevich D., Ladutska N.
What Does “Green Logistics” Mean?

Belarusian National Technical University
Minsk, Belarus

The term “logistics” had first been associated with its use by the military. During World War II military forces made effective use of logistics models and forms of systems analysis to ensure that materials were at the proper place when needed.

Nowadays, logistics describes the flow of goods and information. The concept includes information transfer, control operations and the physical handling of goods. Logistics forms a strategic part of the total operation of a company. The logisticians who have graduated from institutes of technology have been well placed in working life, such as management and planning of transport, storage, and terminal operations. The students of logistics should have a good basic knowledge of the technologies of the field. The student can choose to specialize in fields such as material handling and long-distance transport.

Modern logistics, in order to meet the requirements of time and technological developments, must meet such an important requirement as environmental friendliness. "Green" logistics can be called a promising direction for the development of activities in the field of supply chain management [1].

The relevance of this topic is that in recent years the issue of environmental friendliness has been increasing. Society is beginning to take more care of the environment. This attention to the issue of nature conservation has prompted organizations to think about the role of green logistics.

The purpose of this article is to consider the issue of "green" logistics and its impact on the environment.

Green logistics is concerned with reducing environmental and other negative impacts associated with the movement of supplies. Green supply chains seek to reduce negative impacts by distributing and managing reverse logistics to eliminate any inefficiencies, unnecessary cargo transportation, and discarded packaging. Reverse logistics focuses on reducing and replacing sources, rather than on reuse and recycling. Reducing the source refers to performing the same actions with a smaller resource. This practice reduces the total amount of waste. Replacement means using more environmentally friendly materials instead of conventional ones, which eventually become pollutants. Recycling gives discarded materials a new life after some chemical or physical processes [1].

There is a close link between reverse logistics and environmental protection. It focuses on the management of products, components, and materials that have been used and discarded and for which the manufacturer has some responsibility. The main goal is to reuse these products and, where possible, reduce the final amount of waste. Working with recycled products does not allow you to use fresh raw materials for the production of new products. This leads to a direct reduction in production costs, as well as a reduction in energy consumption and a reduction in air and water pollution. In order for reverse logistics to be as effective as possible, it is also necessary to involve the consumer. Creating reverse logistics offers companies the following advantages:

- Minimize the impact on the environment. Reuse of materials in production processes helps prevent misuse of raw materials and requires less energy. This practice will directly benefit society as a whole.

- Increasing the number of positive customer reviews. There are significant competitive advantages for businesses

using reverse logistics. More clients are interested in doing business with companies dealing with environmental issues.

- Inventory management. Reverse logistics means better inventory management, which stops the placement of outdated products and minimizes possible errors.

- Reduce costs and increase revenue.

Reverse logistics is becoming more and more relevant throughout the business world. While these methods contribute to a cleaner environment, they are also a clear business opportunity due to savings from recycled products [2].

"Green" technologies are currently at the stage of their early development, just as information technologies once were. It is expected that the development of "green" technologies will be comparable to the information innovations that have actively entered our life in terms of scale, power of influence on changing the structure of the economy and upcoming changes. Because of it along with "green" technologies, today such concepts as "green" investments, "green" schools, "green" cities, and "green" economy are actively entering our life.

Green logistics is designed to solve the problem of reducing the impact of road transport emissions on air pollution. It is known that the amount, composition and degree of harmfulness of exhaust gases depend on the engine design, type and quality of fuel, technical condition and mode of operation of the car. Only one adjustment of car engines can reduce several times the toxicity of exhaust gases [1].

Nowadays scientists of some countries actively develop new technologies that allow you to throw away less harmful substances into the atmosphere. At the end of the 20th century, designers and developers introduced cars of a new generation - environmentally friendly electric cars. Electric cars have several advantages:

1. Environmental friendliness.
2. Less noise is generated.

3. Comparative reliability and durability of the engine.
4. Profitability. Ability to charge batteries from standard electrical network can significantly save on expenses.
5. Engine power. Modern electric cars with ease set high-speed records, while shocking with its dynamics.

But there are some disadvantages of electric vehicles:

1. Large battery power losses during sudden starts and variable speeds.
2. With the widespread use of electric vehicles, it will require the creation of appropriate infrastructure for their maintenance, and qualified personnel.
3. Recharge time. It takes about 5-8 hours to fully charge an electric vehicle.
4. In winter, battery power consumption is increased by heating the interior, brushes and headlights.

Green logistics is a form of logistics designed to be environmentally friendly. It has both environmental and economic and social advantages. Many modern companies are proud of their environmentally friendly practices. Companies interested in implementing green logistics can use the services of logistics consultants who specialize in helping companies transform and optimize existing logistics systems.

References:

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