

Секція 1. Проблеми стратегічного управління конкурентоспроможністю на основі інновацій

Further, the vehicle is equipped with a fuel control system, which makes theft impossible. Logistics systems build the optimal route in automatic mode. Warehouse management systems speed up loading and unloading and minimize errors. As a result, the time for delivery processing is significantly reduced, the probability of losses is reduced, transport maintenance costs and downtime are reduced. As a result, the main task is fulfilled – costs are reduced [4].

Digitalization of logistics processes for business gives huge advantages, here are the main ones: simplification of communication, automation of transportation planning, real-time control of transportation, order planning, contractor control, work with the warehouse, analytics and reporting, budget management.

Digitalization processes are quite complex and time-consuming. They include a large number of tools, and many of them are developed individually for business. But despite the large number of tools that help to digitalize business, they can be conditionally combined into two most common systems: WMS and TMS.

WMS is a Warehouse Management System. It allows you to automate warehouse processes, expand volumes and increase turnover. One of the tasks of such a system is to track the life cycle of goods in order to control stocks, expiration dates, to form unloading schemes taking into account expiration dates. All warehouse processes become transparent, each operation is accurate and easily traceable. Warehouse capacity also increases thanks to the WMS system. Due to the organization of transport and distribution of goods in the premises, the workload on employees is reduced, and the speed of task execution increases. Among other advantages of implementing a WMS system are the following: increased productivity by reducing routine tasks, accurate tracking of each operation and simplifying interaction between employees; warehouse throughput is significantly increased, and space can be optimized by proper placement of goods; simplified workflow, many processes are easy to automate; increased turnover due to accelerated work and high accuracy.

TMS is a Transport Management System. The main task of the TMS system is to organize the delivery of goods from point A to point B. TMS system allows you to automate the work with documents, collects data and reports on fuel consumption, other costs and offers optimization options. Thanks to monitoring tools, it can control the movement of transport, predict delivery time. Mobile solutions enable drivers, managers, warehouse workers and other participants in the logistics process to receive timely information.

This makes it possible to establish communication within the company and improve logistics processes through proper interaction of all participants. What does the TMS system give for business: transportation costs are reduced; communication within the company is improved; more accurate route calculations are made; “weaknesses” at the stage of cargo delivery are identified and ways to solve them are proposed; all transportation becomes transparent and fully controlled [1].

In addition to the introduction of IT technologies that allow digitalizing the company’s logistics, there are other tools that automate many processes. Here is an example of some solutions:

Internet of Things. These are physical devices that connect to the Internet and connect the digital and material worlds. A sensor that is installed to control the temperature inside the car when transporting perishable products collects information, allows you to adjust the temperature automatically. Or a device that monitors the driver’s route and reads fuel consumption, which avoids theft. This is the Internet of things.

Analytics and BigData. Services allow you to collect and process a large amount of information and on its basis make forecasts, build logical chains and find solutions. By collecting and processing data, you can significantly reduce costs, reduce fuel consumption, and optimize routes.

Autonomous vehicles. New technologies have allowed to create devices to provide autonomous delivery. In 2016, Amazon delivered a parcel

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to a customer using a drone for the first time. The use of such tools can speed up logistics, reduce costs and make it more comfortable.

Robotization. In logistics, robotics is not yet used so actively, but still large companies are introducing automated systems to improve processes. For example, robots that work inside the warehouse, cargo packaging systems, forklifts, inventory controllers. These are just some examples of robots that can work in the logistics system.

Thus, the digitalization of logistics processes is an integral process of company growth. It helps to automate work processes, reduce the workload on employees, improve communication and optimize logistics processes. This is a modern approach that a company should strive for if it wants to stay above the market, grow and increase turnover.

Literature

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