

# 13. THE SIGNIFICANCE OF SOFTWARE IN LOGISTICS

*Hramyka M.R.*

*Belarusian State University of Informatics and Radioelectronics  
Minsk, Republic of Belarus*

*Murzich L.F. – Lecture*

The importance of automation in logistics through the use of various software is described in this paper. A list of various applications with their functions is presented.

Nowadays technology does not stand still, so it is very important to be efficient. And automation is the way for evolution of the service sector. The term automation implies replacing the work that people used to do at the enterprise with machine labor.

There are many processes in logistics that require automation, such as supply chain, warehouse management, delivery optimization, fleet management. All these parts of logistics can be automated with the help of software.

The following benefits of using logistic software should be defined:

1. Optimization and cost reduction of the supply chain from 9 % to 4 % can double profits.
2. 70 % believe that logistics management software is a key driver for quality customer service.
3. Good logistics management software can provide 24x7 customer support.
4. Smart and intelligent route planning can ensure a good fulfillment rate and customer

satisfaction [1].

Types of software that can be used for the development of these industries.

Enterprise resource planning (ERP) refers to a type of software that organizations use to manage day-to-day business activities such as accounting, procurement, project management, risk management and compliance, supply chain operations. A complete ERP suite also includes enterprise performance management, software that helps plan, budget, predict, and report on an organization's financial results.

ERP systems tie together a multitude of business processes and enable the flow of data between them. By collecting an organization's shared transactional data from multiple sources, ERP systems eliminate data duplication and provide data integrity with a single source of truth.

ERP systems integrate numerous business processes and provide data transfer between them. By collecting a company's overall operational data from multiple sources, ERP systems eliminate duplication and ensure data integrity with a "single source of truth."

Today ERP systems play a critical role in the management of thousands of companies of all sizes in all industries. For these companies ERP systems are as necessary as electricity for lighting [2].

SCM system is defined as the software your company uses to manage the flow of goods, data and resources related to any product or service you sell, moving it from raw material procurement to final delivery.

Supply chain operations cover aspects such as purchasing, product lifecycle management, supply chain planning (including inventory planning and maintenance of enterprise assets and product lines), logistics (including transportation and fleet management), and order management. SCM may also extend to activities related to global trade, such as managing global suppliers and multinational manufacturing processes [3].

A warehouse management system (WMS) consists of software and processes that allow organizations to control and administer warehouse operations from the time goods or materials enter a warehouse until they move out.

Warehouse Management (WMS) solutions additionally enable companies to maximize their labor and space utilization and equipment investments by coordinating and optimizing resource usage and

material flows. Specifically, WMS systems are designed to support the needs of an entire global supply chain, including distribution, manufacturing, asset-intensive and service businesses. In today's dynamic, omnichannel, fulfillment economy, connected consumers want to buy anywhere, fulfill anywhere and return anywhere. In order to be able to meet this need, businesses need the ability to respond quickly with warehouse management software that optimizes fulfillment capabilities [4].

Customer Relationship Management (CRM) is a software system that helps business owners easily track all communications and nurture relationships with their leads and clients. A CRM replaces the multitude of spreadsheets, databases and applications that many businesses patch together to track client data. The result: organization, efficiency, better time management, and impressed clients [5].

Due to the specifics of the modern world, where the English language occupies an important place, applications, common in the CIS as well as in English-speaking countries, were considered. It also matters for people who want to deal with logistics while collaborating or locating in other countries.

The functionality of two applications of the same type, which are popular in the CIS and abroad, are to be considered.

Such type of software as ERP presents 1C:Enterprise and E2open.

1C:Enterprise, allows to automate the main business processes, monitor key performance indicators of the enterprise, organize the interaction of services and departments, coordinate the activities of production departments, evaluate the effectiveness of the enterprise or an individual [6].

E2open is creating a more connected, intelligent supply chain. It starts with sensing and responding to real-time demand, supply and delivery constraints. Bringing together data from customers, distribution channels, suppliers, contract manufacturers and logistics partners, their collaborative and agile supply chain platform enables companies to use data in real time, with artificial intelligence and machine learning to drive smarter decisions. All this complex information is delivered in a single view that encompasses the user's demand, supply, logistics and global trade ecosystems [7].

Such type of software as SCM presents Oracle and Infor.

Oracle, incorporates the digital supply chain with capabilities that include product innovation, strategic material sourcing, outsourced manufacturing, integrated logistics. Omni channel fulfillment, and integrated demand and supply planning [2].

Infor provides tools of increase in visibility, flexibility, control and collaboration in management of supply chains, combines planning, purchases, execution and financing of a supply chain. The modular system allows to build the most suitable configuration, without having to adapt the entire production cycle [8].

WMS offers Axelot and Sortly.

Axelot optimizes the use of sites. Acceleration of warehouse operations, improves the efficiency of staff work. It helps to manage applications and plan flights, accounting of own vehicle fleet and fuels and lubricants, helps to control drivers during the working day, analyzes the deviation from the planned route [9].

Sortly scans and updates items using QR labels and barcodes. It creates automated alerts to track stock levels, assigns user roles and manages access permissions, tracks inventory and user activity, creates custom CSV and PDF reports [10].

CRM includes Smart Logistics and HubSpot.

Smart Logistics generates a journal of contracts, helps to manage personnel (report on managers, calculation and accounting of salaries, formation of KPI, etc.), helps to manage risks in transportation, allows to improve electronic document management, makes an assessment of key indicators using dashboards, integrates with company systems using API, ensures data security [11].

HubSpot can support contact and lead management, business insights. It reports dashboard, manages risks in transportation, includes pipeline management, business calls and email tracking, meeting scheduler [12].

Having studied software market for logistics and compared familiar applications of the same type, taking the list above into consideration, the conclusion to come to is that the main functionality of applications is similar, the main difference is price and availability.

Besides, the descriptions of these applications clearly show the list of processes that are being optimized at present. Therefore, the software in logistics plays a very important role in optimizing business and saving time.

It is necessary to mention that the given applications contain some of the popular recommended options with positive reviews. However, the choice of logistics software is much wider. And future users, first of all, need to understand which functionality is important for them particularly.

It is absolutely evident that to be in great demand different types of software must be thoroughly chosen and used.

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