

The Use of Logistic Principles in the Systems of Distribution of the Goods in Online Store

Maria Guseva

State University of Management
Moscow, Russia
e-mail: boxgusevoy@yandex.ru

Alexandr Birukov

State University of Management
Moscow, Russia
e-mail: apbirukov@yandex.ru

Irina Brikoshina

State University of Management
Moscow, Russia
e-mail: brikirina@yandex.ru

ABSTRACT

The article, devoted to the use of logistics principles in the system of distribution of the online store, provides recommendations to optimize these processes. The article analyzes features and trends in the dynamics and development of the Internet commerce and the problems faced online store owners and consumers.

Keywords

Information support, management capacity, Internet commerce, management.

1. INTRODUCTION

The modern world is moving forward at a very fast pace, and we need to keep up with all the latest innovations, as they contribute to the convenience and ease of life when used at home or at work. Modern homes are equipped with an automatic light switch, an automatic lawn sprinkler, a mixer with many functions, a modern iron that automatically adjusts the program to the type of fabric and clothing. Modern technologies also work well in the workplace - modern computers and office equipment significantly speed up working process and improve its quality. A distinctive feature of the modern Russian economy development is the request for digital economy technologies. Online trading has the entire arsenal of tools for effective management. Entrepreneurs try to minimize the costs of their activities using modern digital technologies. Organizations cannot ignore the changing needs of consumers and need to use software that allows to make and transmit decisions using online trading methods.

2. INFLUENCE OF MODERN DIGITAL TECHNOLOGIES ON THE COMPETITIVENESS OF THE COMPANY

The online trading sector is gaining increasing popularity, the share of online stores in the Russian market is not large, but the number of sales is growing at a tremendous pace, and new advances in the technology sector allow us to introduce new means of payment and trading platforms for any business. Internet trading is gaining momentum. The number of Internet users is constantly growing in Russia. According to the Internet trade associations, Russia today is the number one market in Europe in terms of the number of users. Digital technology cannot be used without the Internet, which allows to remove borders and give an access to shopping, education and entertainment for the widest and most diverse audience. The Internet is not only an inexhaustible source of information with many information sites posting the news in just a few minutes, but a social environment, helping us to find friends and maintain existing contacts. The Internet also provides a variety of entertainment thanks to the many online games, music and video hubs. Educational potential is

also great as a lot of features are applicable from an early age. Nowadays, one can study any subject online without difficulties, which makes it possible to improve qualifications for many people, including disabled people or babysitting mothers.

The role of the Internet network in advertising is pivotal. The promotion of websites enables to conduct business more effectively. Today, companies have their own websites and open profiles in social networks. This allows to reach as many customers as possible or a specific target audience in a very short time. The Internet also opens some opportunities for convenient online shopping in wide variety of virtual stores with well-known and reputable companies among them.

Such purchases are very convenient saving for buyers not only time, but also money as long as online stores do not pay rental of premises, and payment for a domain often decreases, so they can offer lower prices to their customers. Online stores sell almost everything: clothes, shoes, books, toys, cosmetics and even medicines or products. Secondhand goods are also available, many advertising pages offer used cars, houses and land plots, apartments to rent. Figure 1 presents data on users of the Internet in Russia.

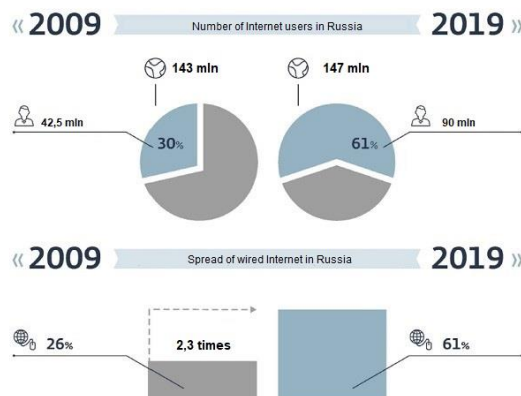


Fig. 1. Number of Internet users in Russia 2009-2019
Internet technologies have led to a change in the structure of the economy, its digitalization. The development of telecommunication and information technologies has served as a favorable environment for the emergence of e-business based on the principles of the digital economy. This is an entrepreneurial activity that is carried out with the help of digital connections and is carried out only in the Internet. On the contrary to national-wide industrial economy, digital economy is global, which significantly expands the range of customers, suppliers, partners and competitors. Business in the network has become available to everyone, direct sales through online stores without the participation of intermediaries represent a new business model. The fundamentals of Internet technologies gave an impetus to the emergence of new methods of doing business. Network economy implicates online communication, which

makes it possible to develop virtual relationships between business partners.

The development of the information industry depends on a variety of circumstances, especially on investments in telecommunications, the quantity and quality of hardware, and the number of users with access to the Internet.

Today there are many types of e-business:

- Online stores;
- Trading platforms, or online auctions;
- Investment funds;
- Internet Marketing;
- Financial services;
- Advertising business;
- Software development and digital products.

Technology news reports that Internet technologies are emerging every day. Hence, there are new opportunities in all areas, including business.

However, like most new areas of online shopping, there is a number of difficulties. Firstly, it is difficult to study as sources of reliable information are very limited. Most statistical data do not distinguish the sector from the rest and in standard classifications it is mentioned only partially. Research in this area is extremely rare and mainly analyzes only the characteristics relating to consumer demand.

That is why this topic seems very relevant.

The model of any business is based on two aspects - the production of goods or services and their consumption. To establish a stable two-way communication, you need effective advertising and continuing search for the target audience. Every year, companies invest less and less money in promoting their services through traditional sources (television, press, radio), preferring to find new customers and business partners in the web. The use of Internet technologies in business of any kind accelerates the process of getting consumers and helps manage resources more accurately. The advantage of Internet technologies and the primary reason for its boost lies in lower costs of advertising and promotion; quick search of the target audience; work in a single space without boundaries.

Internet technology in business is a powerful marketing tool that can be used in various directions to achieve specific goals:

- advertising of the company, its goods or services;
 - increasing sales of products;
 - unlimited possibilities in conducting a variety of studies (building real models of development of specific market segments, opinion polls and other thematic surveys);
 - e-commerce (the sale of goods or the provision of services online, exchange trading, banking, stock markets and much more);
 - the provision of additional / related services after the sale of goods;
 - public relations (news, presentations, additional information at the request of potential or existing customers).
- Creating a corporate website or Internet news portal significantly increases the company's awareness and ensures a steady flow of customers with implementation of the correct marketing strategy. In addition, this affects the image of the organization, because the presence of its advertising resource in the network or a quality website is an indicator of prosperity, stability and successful development of any online store.

3. USE OF LOGISTIC METHODS IN THE WORK OF ONLINE STORES

The concept of logistics has become a part of modern business processes. Logistics is a collection of data on planning, management, and control over the movement of material, information and financial resources that plays an

important role in the implementation of almost any business idea, regardless of the level of national economy.

The concept of logistics is to be interpreted according to the complexity of the tasks in a particular company, the specifics of its activities and other factors. Still, the goal of any logistics system is to organize the participants' actions in the logistics chain in order to accomplish the assigned tasks in the most effective way. The logistics of an online store can be of several types: procurement - its subject is the purchase of the final product with the most economic benefit, with the minimum cost of labor and in the optimum time; transport covers the competent organization of the movement of goods from point "A" to point "B" with minimal expenditure of material, labor and time resources; warehouse performs the tasks of competent organization of reception, processing, storage, and also shipment of products from warehouses; information, etc.

If we analyze the tasks of various types of logistics systems, we can conclude that the main task of logistics is to minimize the costs that are included in the cost of the final product. In modern market economy, stores are increasingly facing the need to reduce the cost of their goods to maintain their competitiveness in the market. Online stores are no exception, the distribution of goods by online store is a complex and time-consuming process. It is necessary to consider and analyze a system of interrelated and interdependent indicators, followed by the corresponding list of logistic operations related to the timely and uninterrupted supply of online stores with all necessary goods to organize it efficiently, on a logistical basis.

The discovery of the reserves that compensates the costs of fulfilling the ever-growing consumer demand leads to the development and popularization of logistics. Now, any online store searches for opportunities to reduce production and distribution costs for their own profit, the size of which directly depends on the degree of consideration for the interests of the consumer and the provision of complex services [1, p.10].

The main indicators of logistic principles efficiency in the distribution systems of goods in an online store are following:

- the percentage of the cost of logistics in the price of goods;
- the number of orders delivered on time in relation to the total number of orders;
- the number of orders generated and delivered in full in relation to the total number of orders;
- the number of orders delivered without compromising the packaging to the total number of orders.

Below a scheme of optimization of the logistic principles usage in the distribution systems of goods online store is considered.

During the reporting period, the number of complaints from customers increased, or a study conducted on the delivery of competitors showed that their delivery of goods is better.

In this case, management decisions are required for business processes optimization in the logistics system.

This optimization process includes certain stages. Table 1 provides a theoretical description of the process, and in the right column there are examples of process optimization.

Tab. 1. Online store goods distribution business processes optimization

I. Definition of the process as it is:	Example: Order Delivery
1. Determine the input process.	Example: Order goods by buyers.
2. Determine the existing output of the process.	Example: Orders delivered on time turned out to be 75%.
3. Display the existing relationship between the actions of the process.	Example: Make a detailed scheme of its logistics.

4. Determine entry and exit requirements.	Example: Order is made via the Internet and telephone, the required level of service is 85%.
5. Build a flowchart of the process with a detailed display of all the actions that make up this process.	

The input is the order of goods by the customer, the output is the level of service we want to achieve. For example, today delivery takes two days.

The management decision is to reduce this period to one day. We check how many orders fit in one day. It turned out to be only 75%. The delivery of remaining 25% takes more than one day. What can be done? First of all, it is necessary to take the basic logistic scheme and reveal each element, each block of the scheme in more detail.

Then, you can find some errors, duplication, etc. Then, the requirements are published: the order must be made via the Internet or telephone, with a target service level of 85%, so that 85% of orders will be delivered in one day. We consider the process diagram of the one that exists today, as it is - this is where we begin to work.

What is process optimization? In our opinion, it is necessary to find such a scheme, which will show those indicators that need to be achieved. In this case, we consider the rate of passage of orders. By the same logic, you can optimize other indicators. The most important thing is that the performance indicator should affect the quality of the business process.

Table 2 shows the ways of resolving logistical problems in online trading.

Tab. 2 Ways to solve logistical problems in e-commerce

II. Process optimization - as I would like to:	Example: Order Delivery
1. Check all actions on the need for inclusion in the process;	Example: Order goods by buyers.
2. Evaluate each action in relation to its costs;	Example: Orders delivered on time turned out to be 75%.
3. Estimate the duration of each action and eliminate delays in actions;	Example: Make a detailed scheme of its logistics.
4. Eliminate the sources of errors in the actions;	
5. Construction of a flowchart of an optimized process with a detailed display of all the actions that make up this process. The implementation process.	Example: Order is made via the Internet and telephone, the required level of service is 85%.

In this case, the basic principle is a quick response to the order, and this is a logistic parameter.

Thus, the factors of the logistic approach could be determined [3, p.18]:

- economic, as in the first place is the saving of material resources;
- organizational, as it provides the relationship between the online store, warehouse, middleman and transport;
- informational, since the management of material flows is based on relevant information;
- technological, as logistics develops on the basis of modern technical advances in the field of the latest Internet technologies;
- governmental regulation, since the logistics approach requires the harmonization of economic interests on the basis of state regulation of economic processes.

If the principle of "calculation-benefit-profit" is in the focus of attention in the conditions of functioning of an online store, the logistics approach to product distribution ensures the implementation of this principle through the introduction of new logistics technologies and possible changes in management structures. The essence of the

problem is not that it takes place. It lies in the fact that nobody learns to work with the return flow.

There are a number of specific measures to facilitate the work with return flows without resorting to serious investments. For example, the optimization of the contractual base, which takes into account all the nuances due to the carefully described structure of the return flow. At least, this allows to avoid a situation when you receive several hundred items of key fobs mixed in TV boxes.

In addition, if an Internet company spends about one million rubles per month to sort and process the return flow, it may be more expedient to spend, for example, half the money, simply giving discounts to key customers and make an agreement that returns are not accepted [5, p.12].

Also an effective step can be the optimization of work technology with the specialized equipment to quickly process this stream, taking into account the organization of workplaces in warehouses and distribution centers.

Thus, the developed directions open up the ways for more efficient management of the logistics system in terms of online store goods distribution, which directly affects the increase in the level of service and ultimately the increase in the company's profits.

Creating logistics for an online store is an important element that should not be neglected. You risk losing the loyalty of your customers in case the goods are not delivered or picked up from the supplier on time.

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