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## PROBLEMATIC ASPECTS RELATED TO LOGISTICS AND SHIPPING COSTS IN ONLINE STORES

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**Abstract:** *As could be seen after the outbreak of the pandemic, the food industry moved its activity to the digital world. In addition to the need to consider whether this is a viable move due to high operational costs, retailers of products (especially food) should also take into account the fact that there are some characteristics to the logistics of an online supermarket and their transportation, which affects the whole activity. Successful food chains, whose operations were digitized before or during the pandemic, achieved colossal results but also had to overcome logistical obstacles (the appearance of new customers). Indeed, there is no way to avoid these complexities. In this article, we will highlight the main peculiarities of the logistics and transport of an online supermarket: both the sensitive points and the opportunities for food retailers.*

**Keywords:** logistics, cost, distribution chain, accounting, small and medium enterprises, online store.

**JEL Classification:** M20, M41

The domestic sphere of commodity circulation is characterized by a high rate of institutional transformations of market formats, which entail large-scale organizational and economic changes in its functioning. The arrival of foreign retail chains that implement industrialization technologies in trade stimulated the expansion of network forms of retail organization in the consumer market. The active development of supply chains within the direct sales system has led to the abolition of the traditional wholesale trade model, especially in food retail, the transition from an open market format to civilized store sales forms [4].

At present, the domestic retail industry is characterized by the development of a multi-channel sales model, which is rapidly transforming the business models of modern trade. The emergence of a multi-channel sales model creates a fundamentally new role for logistics, which in the current phase of online retail development not only provides an opportunity to differentiate the product and service offer, but also creates an additional barrier to entry into the market, increasing retail monetization in digital distribution channels.

Currently, e-commerce is gaining more and more ground, at the expense of the traditional one. More and more citizens are doing their shopping online, and interest in entering eCommerce is growing among many entrepreneurs who have had no previous experience in this market, so the first thought turns to costs.

As professional accountants, it is very important to be prepared in this field, to know what the conditions are to operate legally in this sector of activity, so that we can face all the challenges.

Among the advantages of e-commerce can be listed:

- 1) for SMEs - it is an excellent possibility to start a business with a lower initial investment;
- 2) there is no rent for commercial premises;
- 3) no need for expensive shop repairs;
- 4) no need for a salesperson, no training for them;
- 5) at the same time, due to the main characteristics of e-commerce (transparency, speed, real-time feedback), the trader should invest more time and financial resources in the following three areas: accounting, taxation, and other legal implications [9].

The main normative acts that regulate electronic commerce in the Republic of Moldova are:

- 1) Law on internal trade no. 231/2010
- 2) Law on entrepreneurship and enterprises no. 845/1992
- 3) Law on electronic commerce no. 284/2004
- 4) Law regarding the exercise of unqualified activities of an occasional nature carried out by day laborers no. 22/2018
- 5) Law on the manner of introduction and removal of goods from the territory of the Republic of Moldova by natural persons no. 1569/2002
- 6) Law on consumer protection no. 105/2003
- 7) Labor Code of the Republic of Moldova no. 154/2003
- 8) Law on the protection of personal data no. 133/2011

As could be seen after the outbreak of the COVID-19 pandemic, the food industry has moved its activity into the digital world. In addition to the need to consider whether this is a viable move due to high operational costs, grocers should also take into account that there are some characteristics of the logistics of an online supermarket that affect their entire business.

Next, we will highlight the main particularities of the logistics of an online supermarket with the characteristics of their sensitive points and the opportunities that may exist in their removal.

Ensuring profitability throughout the supply chain is one of the main challenges facing the online supermarket logistics industry, mainly as a result of last-mile pickup and delivery. Another difficulty lies in inventory management, which we'll talk about eventually.

When a person places an order online, regardless of the fulfillment option they choose, someone must pick up the selected products and prepare them for shipping or pickup. At first, it may not seem like a difficult part of the operation, but this is one of the most difficult tasks - with a high cost:

- It involves labor costs for those who will actually do the picking: it draws attention to the fact that 70% of the costs of warehouse operations are related to labor costs, and 70% of the work time is used for picking orders [10];

- A pick-up order to follow: fresh and frozen products should be last to ensure they are still good to eat when delivered;
- The efficiency of picking can vary depending on where it takes place: in regular stores, there are customers buying products, and the aisles are designed to make them walk around, which affects their direct picking;
- The availability of the products must be foreseen to guarantee the correct takeover; otherwise, customers should be offered an option to replace the unavailable product;
- Customer preference for fresh products: Picking up these specific products will not always satisfy the end customer and they may ask for a refund in certain situations [11].

### **Last mile delivery**

The final stage of the delivery process, also known as final delivery, which occurs from the moment the order leaves the distribution center until it reaches the end customer. It is considered the most expensive part of the entire online grocery operation since most of its costs are variable (ie time spent in city traffic). According to studies, this represents 41% of total supply chain costs.

Although not exclusive to the food industry, there is once again a need for this to be as fast as possible, as fresh and frozen products are among the products being shipped. They are also required to have the lowest (or no) delivery charge to the end customer as per customer expectations. And of course with the lower cost to the company – that's the challenge.

There are innovations in last-mile delivery. However, there is difficulty in identifying a business model that not only works for grocery stores but also lives up to customer expectations.

So far, the solutions that food retailers have found to approach this scenario are the ones mentioned above: they will not only operate in virtual stores in urban areas, where orders are concentrated but also, will offer different shipping options for customers as a way to dilute last-mile delivery costs.

### **Stock management**

Managing the inventory of a regular store can be easy because customers can clearly see which products are out of stock and compare the labels and prices on the shelves. When it comes to online grocery shopping, however, this can become a challenge: How can we keep inventory numbers accurate while avoiding stockouts and not frustrating our customers?

To respond to this scenario, there is a need to create a process similar to the physical experience of color browsing where replacement options are provided (either through product recommendations, easy-to-navigate websites, or pickup policy) and also to predict order volumes, which is something feasible in an online operation, which provides companies with customer behavior data [1].

Once again, technology is a possible solution here: investing in tools and features that will guarantee as much inventory accuracy as possible and allow customers to buy, perhaps not the main option of the out-of-stock product, but a second option, and not to ask for a refund if the chosen product is not available.

These are measures that will not only ensure cost-effectiveness for grocers but also customer satisfaction.

Among the existing opportunities for food retailers can be described the following:

1) **First of all, the creation of virtual stores.** As a result of the growing volume of online orders, many grocers have opted to turn part of their brick-and-mortar stores into local warehouses where customers cannot go shopping. Instead, these stores are only used to fulfill online orders, and only if necessary, these units could also be converted into brick-and-mortar stores. The concept of "virtual store" is relatively new, it developed with the pandemic when online orders suddenly became normal, and it is considered a long-term trend by specialists. There are several reasons why it has become so popular for food retailers:

- It reduces delivery times, as the pick-up operation can be carried out easily and faster;
- Facilities inventory management, namely order management and more accurate pickup; in physical stores open to customers, it is much more difficult to accurately track stocks in real-time;
- It enables automation – whether it's picking or inventory management – leading to faster delivery.

It is not exclusive to the food industry: other segments with online activity also have virtual stores, or so-called "semi-virtual stores", which allow customers to pick up orders. However, there is a perfect fit for the food industry due to the challenges when it comes to managing online orders (ie, the quantity of items per order is much higher, from about 20 to 50, and with fresh items in between). We're not saying that running a virtual store isn't another food logistics challenge to consider, but it does show us that they're becoming more and more essential to online operations and can even be the solution to some common logistics problems like last-minute delivery. Kilometer [5].

2) **Order fulfillment options: in-store shipping, in-store pickup, and home delivery.** At this stage, customers expect different fulfillment options when shopping online. As has been shown, for example, younger customers prefer to shop online and pick up the order in-store instead of opting for home delivery. To keep up with trends and maintain customer satisfaction, then, it's important to offer all the transportation alternatives they want.

The main ones are home delivery and store pickup.

For businesses, another option that can bring many benefits to the fulfillment operation is in-store shipping. The order is delivered to the customer's home, but not from warehouses or virtual stores, but from a real store.

Managing such different operations may seem complex, but at the same time, it is important to say that it not only keeps customers loyal but can also reduce costs. When shipping from a brick-and-mortar store, inventory dedicated to digital channels will not depend on, for example, a virtual store or warehouse. When in store pickup is offered, delivery costs are reduced and problematic last-mile logistics are avoided.

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Experts argue that decentralized fulfillment operations are the best option for retailers (and therefore grocers). A centralized model has a higher distribution cost and longer delivery times, the exact opposite of a grocery order.

Last but not least, technology is seen as the main ally of fulfillment efforts. It allows automation and therefore more orders to be completed in less time, all with more accuracy and lower costs. Everything is connected: Virtual stores are often considered to be the best fulfillment model for grocery retailers, for all the reasons mentioned above, and also a more efficient way to offer home delivery or any other option. In the case of an automated virtual store, these efforts show even more results.

**2.1. Speed of fulfillment.** Nowadays, speed is more important than ever. Even more so when it comes to fulfillment and delivery: currently, according to studies, 75% of customers prefer online shopping for safety, convenience and speed.

Optimizing delivery options to guarantee faster fulfillment is the ideal scenario, and brands have found a way to do this: creating delivery slots by having micro-fulfillment centers in urban locations to reduce last-mile delivery time and investments in technology that enable faster fulfillment of orders [7].

**2.2. Scheduled delivery.** Scheduled delivery for recurring orders is a standard for regular orders, an opportunity for the food industry regarding digital operations. Since online supermarkets are a permanent service and people need to shop for food and other household items constantly, there is an opportunity to offer customers the opportunity to place recurring orders with scheduled delivery. This means that once a week, twice a month, or any frequency they want, they will receive the selected items in their homes without having to go through the purchase process every time.

Providing these services is not only a way to prepare for future order deliveries, but also to build customer loyalty, increase sales and highlight the convenience of services.

**2.3. Partnerships with third-party services.** A solution identified by grocers to deal with the logistics costs of an online supermarket, especially those with last-mile pickup and delivery, is to outsource these services through partnerships with other companies that offer this service.

While there is a fee for both the third-party company and the person taking and delivering the order, they tend to be less than the costs of actually owning these services.

This trend is growing for grocery stores, restaurants, and pharmacies – businesses that these delivery services are focused on. As these businesses become facilitators, nothing changes for the end customer. Studies have shown that 64% of consumers are indifferent to whether the delivery is made by store employees, individuals, or third-party couriers [5].

The food industry, when it comes to business transformation, is just like any other: there are ups and downs, generally. When we look at the logistics of this transformation, however, that's when we realize how difficult it can be, but also what opportunities retailers have to reinvent the market and maintain sustainable operations. The truth is, there's no one-size-fits-all answer when it comes to bringing your grocery business online: it will always depend on your willingness to overcome challenges and make the most of opportunities.

**Conclusion.** During the analysis of the constraints facing the development of electronic commerce, a number of constraints caused by the evolution of this type of economic activity were identified, which require easy adjustment and clarification of the legislative treatment, such as:

- interaction with the tax authorities online (submission of declarations, electronic applications, information presented to the authorities, certificates, copies, etc.);
- standardizing requirements for residents and **non-residents in the e-commerce process.**

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