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OMNICHANNEL AS A NEW CHALLENGE FOR LOGISTICS

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ABSTRACT

The goal of the article is to present the Omnichannel strategy in e-commerce. The article discusses the characteristic features of the e-commerce market in Poland and the influence the society has on e-trade, as well as the major challenges and problems for the logistics in the Omnichannel strategy.

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INTRODUCTION

The rapid pace of the development of information technology is accompanied by simultaneous societal changes, both of which contribute to the growth in the e-commerce sector. The new type of society that started to emerge in the 90's can be described as an information society, which possesses modern, highly developed means of communicating and processing information. New ways of reaching potential customers have resulted in a strong growth in online sales. An increasing number of companies in the e-commerce sector are selling their products solely online, with many chain stores choosing this form of trading as well (Bell, Gallino & Moreno, 2014). There are, however, significant differences between e-commerce and traditional trade, which necessitate implementation of modern methods and solutions allowing a company to stay afloat in the ever-changing e-commerce market. As the e-commerce sector expands, so does the demand for transportation and logistics services. Both logistics and marketing constitute the foundation of any company dealing in e-trade. Just a few years ago, offering

services and products online gave the company a competitive advantage; these days, however, in a highly competitive, globalized world dominated by the Internet, participating in e-market has become a necessity for any corporation if it wishes to survive and thrive (Kozlenkova et al., 2015; Verhoef et al., 2015). The result of all these changes is that implementation of novel sales strategies, such as Multi- and Omnichannel, has become a necessity.

The goal of this article is to present the role of the Omnichannel strategy in e-commerce and discuss the main trend in e-trade that has started to emerge in recent years. The article will further outline the crucial role of logistics, specifically, the logistics of information in reference to the Omnichannel strategy.

ELECTRONIC COMMERCE

Analyzing the relevant literature does not yield an unequivocal answer as to when e-commerce came to be. Many authors point at the 90's, identifying the beginning of e-commerce with the rise of the commercial use of the Internet (Tian & Stewart, 2006). However, commercialization of the Internet gave birth to the very idea of e-commerce, which has been constantly evolving and adapting to the ensuing changes ever since its inception. Even though not yet given its official name, e-commerce existed much earlier. Delving into the topic of e-trading, one is likely to notice that the terms 'e-commerce' and 'e-business' are used interchangeably by both the authors of publications and entrepreneurs. The situation is analogical to that of traditional trading, which is part of business the same way electronic trading is part of electronic business or e-business (Szpringer, 2000). The broadest term here is e-economy, which is defined as a virtual arena of business activity, trade transactions, generation and exchange of assets, and finally of establishing direct links between the participants (Gregor & Stwiszyński, 2002).

Numerous definitions of e-commerce can be found in the literature. The most commonly mentioned features are as follows:

- Executing sell/buy transactions through electronic channels.
- The Internet as the primary means of making said transactions (including the payment) and communicating among the participants.
- Delivery of products and services is done either through or outside the Internet.

The multiplicity of the definitions of e-commerce can be ascribed to the pace at which e-trading is evolving, which necessitates adjusting the existing terminology to the current trends, globalization and the needs of the customers. What is also of importance is the unabated, rapid advancement of new technologies.

CHARACTERISTICS OF THE E-COMMERCE MARKET IN POLAND

The size of the e-commerce market is primarily defined by the growing rate of informatization. An increasing number of people have Internet access, thus joining the vast group of potential customers. In 2010, 28.7% of people worldwide had Internet access which translates into 2,023,202,974 individuals with the access; in 2015, this per-

centage rose to a staggering 46.4% or 3,424,971,237 people with the Internet access (Figure 1) (Internet World Stats, 2015).

Figure 1. Percent population with the Internet access.
Source: Own elaboration based on http://www.internetworldstats.com/

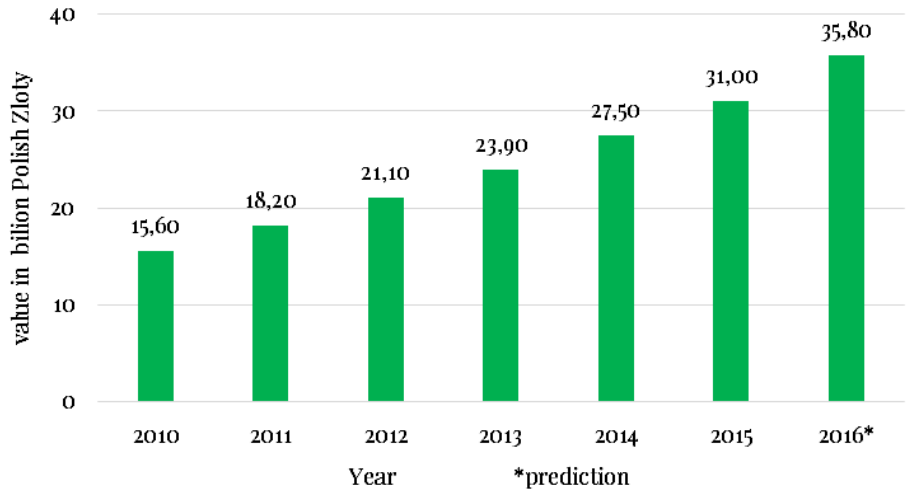

Figure 2. Value of e-commerce market in Poland.
Source: Own elaboration based on Raport Handel Elektroniczny w Polsce, 2015

In Poland, the Internet penetration rate is 76.5%, which means that 9.4 million households have Internet access (Raport *Handel Elektroniczny w Polsce*, 2015). In the same year, the total value of e-commerce market in Poland was estimated at 31 billion Polish zloty (Raport *Handel Elektroniczny w Polsce*, 2015). According to Barometr Ecommerce 2016 report, the value of the e-commerce market in Poland will rise by 15%,

reaching a total of 35.8 billion Polish zloty (Raport Barometr Ecommerce, 2016). Polish e-commerce market is so dynamic that it has been experiencing a double-figure annual growth for the last 5 years. In that time, 2011 saw the most significant increase, namely, 16.2%, while the year of the smallest growth was 2013 with 13.4% (Figure 2) (Raport *Handel Elektroniczny w Polsce,* 2015). This data clearly indicates a huge potential for future growth in this sector, which will result in increasing competitiveness.

INFORMATION SOCIETY

Both globalization and the advancement of information technology have had and will continue to have a huge impact on not only the development of e-commerce, but primarily on the evolution of society (Kotler, Amstrong, Saunders & Wong, 2002). The main characteristic of the information society is placing a high value on information. B. Gregor and M. Stawiszyński report that matters relating to information are at the center of society's attention, taking precedence over consumption, while information infrastructure is considered a factor contributing to nation's wealth (Gregor & Stwiszyński, 2002).

Information society depends to a large extent on knowledge, which is listed among the most important resources that society possesses, next to land, financial capital and work, thus becoming one of the fundamental contributors to production. However, one has to bear in mind that it is information that generates knowledge and vice versa: by acquiring knowledge, we become capable of producing high-quality information, whereby information becomes a medium for transferring knowledge. Therefore, information ought to be considered as one of the most important modulators of production and treated as a resource. The growth and development of information society is undoubtedly affected by widespread access to modern technologies, which creates unlimited channels of communication.

It is difficult to provide a comprehensive definition of what an *information society* actually is. We can find multiple attempts at arriving at such a definition in the relevant literature - the most commonly cited one reads as follows: "An information society is a society that possesses highly advanced means of communicating and processing information the means of which lie at the core of generating national wealth and constitute the primary source of income for the majority of the nation" (Goban-Klas & Sienkiewicz, 1999). What needs to be mentioned in any discussion of information society is its key features, as distinguished and elaborated on by Z. E. Zieliński:

- Production of information – the information society produces, demands and uses information in large quantities and on a large scale.
- Information storage – technological advancement allows for unlimited acquisition and storage of information.
- Information processing – implementation of new techniques and standards regarding unified description and exchange of information.
- Information transfer – transferring information in a manner that is not limited by space or time.
- Information downloading – anyone interested in given information may freely download it.
- Use of information – common, open, unlimited use of information via the Internet.

What distinguishes the contemporary customer is his awareness? He is fully conscious of the relation between price and quality, which means that customers look for high-quality products at a price close to the cost of production. Another important feature of the contemporary customer is the awareness of his bargaining power – high competitiveness means that it is the customer who ultimately decides whether a given purchase takes place or not, and the customer knows it. Likewise, it is the customer who chooses between various delivery options and switching from one to another is of little consequence for him. Another important feature of contemporary customers is possessing access to highly developed means of acquiring information – they use various portals that facilitate exchange of opinions, they are part of global social networks and smaller localized groups, where they can instantly share their insight in regard to a specific product and its seller. The contemporary customer is also time-conscious – he expects that the seller will promptly react to the needs and demands communicated to him. The fast pace of our lives is reflected in the expectations we have towards the suppliers of products we purchase. Finally, the contemporary customer makes use of modern technology – it is he who determines sales trends and the means and devices through which purchases are made and goods are sold.

All these characteristics affect not only the way e-commerce – or e-business – looks, but also the entire economy. Information used by society of such individuals may be turned into a competitive advantage for many companies dealing in e-trade.

OMNICHANNEL

In the past, when a customer wanted to purchase, let's say, a washing machine, he had to go either to a store or warehouse, where he would see what was offered and browse through the functions and parameters of the products. In the 90's, however, commercialization of the Internet began, and with it came the growing awareness of the as of yet untapped potential of websites and the increasing number of Internet users. The first step taken by suppliers was to create websites of their stores – virtual business cards advertising their products to a much larger audience than merely those who actually physically visited their stores. The consequence of putting up a website was an increase in the number of phone calls requesting information about the availability of products. This, in turn, led to the creation of online product catalogues. At first, these were simple lists of the products currently on sale, but with time, they were supplemented with increasingly lengthy descriptions and prices, which was the beginning of online sales market. Shortly afterwards, first HTML-based online shops began to crop up, and their appearance plus their offering shipment resulted in the intensification of logistics services. As the sellers became aware of the possibility of reducing the costs, the number of online shops began to increase on a yearly basis. Going online allows the suppliers to abandon large stores and replace them with small storage areas in the basement or even a garage – this is how many internet shops began their journey towards establishing themselves firmly in today's market and becoming some of the most influential and active sales platforms.

However, the rapid expansion of the Internet affected not only the sellers but also the customers, and it was they who began to dictate the way forward (Hübner et al.

2016). The next step in the development of strategies of online sales was the introduction of new channels. Apart from retail and e-tail, the customer also had a third option, namely to purchase goods by phone, which laid the groundwork for the development of Multichannel strategy that utilizes multiple sales channels. What facilitated further growth of this strategy was the emergence of mobile devices offering Internet access (primarily smartphones and tablets). These allowed consumers to not only make purchases but also compare the prices and seek feedback about the product while standing in the actual retail store (Zhang, 2010). Thus, mobile devices became another important sales channel, which only grew in popularity year by year. This particular sales channel is described as m-commerce, which denotes selling products by means of mobile devices. However, it was not just mobile devices that joined the ranks of sales channels – all electronics, including TV, offering Internet access could be potentially used to make a purchase in an online store or become a completely new sales channel by means of a shopping application written specifically for a given device. Yet another sales channel that is experiencing growth in popularity are social media, some of which allowed vendors to market their products through their sites, thus becoming part of the army of sales channels.

At the moment, customers can buy goods by means of whatever sales channel they prefer and in whichever combination they choose; and this is exactly the idea behind the Multichannel strategy. Over time, however, serious deficiencies in the strategy started to emerge, the most important being lack of information flow between individual channels. It is often the case that multiple channels representing the same store compete with each other for customers by offering different prices, discounts, delivery options and return policies. A solution to these problems is the Omnichannel strategy, which places customer in the center of attention. A graphical approach to the differences between different strategies is shown in Figure 3. Such customers should be given an option to seamlessly switch between different channels, taking the same amount of pleasure from shopping regardless of which channels they opt for (Christopher, 2016).

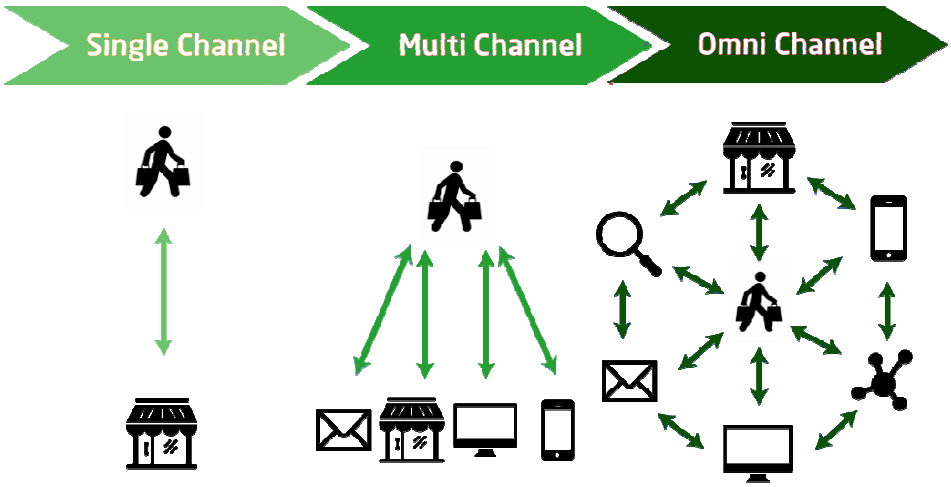

Figure 3. Overview of differences between Single-, Multi- and Omnichannel
Source: Own elaboration based on Hübner et al. 2016

In order for the Omnichannel strategy to be implemented within a company, a few conditions need to be met. First, the customer must be of utmost priority. Sales through multiple channels should be organized in such a way as to ensure that the customer does not feel any difference between various channels and takes an equal amount of pleasure from buying through each of them. For example, he might make his purchase online, but if need be, he must be given the option to return the product via different means. Many shops do not allow this – if a product is bought through one channel, it must be returned through the same route.

Another condition to be satisfied is adopting a processual perspective on the development of the company and full integration of the constituent parts. One must abandon seeing individual channels as separate elements and view the whole company as an integral, robust system, which - even though it is composed of a great number of subprocesses - nonetheless comes together as a fully coordinated sum of its parts.

For the Omnichannel strategy to function properly, it also requires centralized and integrated IT systems, which means that all the information regarding customers, products, prices, discounts, etc., is stored in one data base. This allows realization of a placed order through whichever channel – for example, the customer might start the purchase in the retail shop, but finish it online, through telephone, or vice versa.

The last significant aspect of this strategy is the coordinated and fully monitored flow of resources, including information. Both customer and specific channels have been supplied with precise information regarding stock level and the condition and location of the supplies. For this to happen, a well thought-out and functional information processing system must be implemented, which will enable a specific piece of information to reach its respective recipient at the right time, in the right place and in well-adjusted quantity and quality. This will also allow for the cost of acquiring and processing information to be maintained at a reasonable level.

Demand to implement the Omnichannel strategy is dictated by customers who show most interest in it (Raport *Omnichannel Retailing, 2015)*:

- 90% of respondents would like to have the option to make an online reservation of a product that is sold in a retail store.
- 96% of respondents would like to have the option to return a product via different means than the way they purchased it.
- 96% of respondents would like to check the availability of the products in an online retail store.
- 79% of respondents say that browsing through the offer online encourages them to visit the retail store
- 90% of respondents go online to look for information regarding products they have seen in a retail store.

Such data indicates that there is high demand among the customers for all the major services provided by Omnichannel strategy. However, implementing this strategy is a lengthy and arduous process, which has to be subdivided into well-planned, detailed stages.

THE MAIN OBSTACLES AND CHALLENGES FOR THE LOGISTICS OF THE OMNICHANNEL STRATEGY

From the very moment one starts to plan how to implement the Omnichannel strategy in a given company, the potential problems and solutions need to be taken into account. The source for many of these problems lies in the malfunctioning of logistics, including the logistics of information in said company.

Low quality of information (in basic data). Customers are not able to handle the excess information generated in multichannel sales. It is difficult to store the relevant data from both the customer's and company's perspective, since every action taken by either of them produces a "wave" of information. This means that it is necessary to start viewing information as a resource, the logistics of which need to be handled appropriately – information has to be delivered to the appropriate place (the appropriate recipient), at an appropriate time (delayed information loses its value), in an appropriate quantity (information cannot be too complex or too general but as precise as possible). It also has to be of adequate quality (that, be free of deficiencies, such as false data) and finally, it has to come at an acceptable cost – information, just like any other resource, has to be mined and processed, which involves certain expenses. If all these conditions are met, adequate information resources will be delivered in order for the decision-making processes to be performed efficiently and at a profit. The primary goal of logistics, including the logistics of information, is to ensure an integrated flow of resources in both space and time in a way that maximizes the satisfaction of the internal and external customer at a given level of financial investment (Chaberek, 1999). The above-listed assumptions concerning logistics must be taken into consideration whenever a subset of data is processed, be it in product description or information on the return policy.

Every issue can be traced back to the effectiveness of product flow within the chain of production and consumption. In terms of products that are purchased and returned via different channels, the Omnichannel strategy has a problem with their adequate integration. Such an issue arises when, for example, the product that was ordered online cannot be picked up in a retail store even though it is available.

Another sensitive area of the Omnichannel strategy is arriving at an assessment of the volume of shipment and the costs of its transport. One of the fundamental features of Omnichannel is that it allows customers to make part of the purchase via one channel and the rest via another, which makes it difficult to estimate delivery costs.

Data regarding supply status is not always up to date. This issue is connected with information flow disruptions and the effectiveness of resource flowing along the chain. Lack of integration and a single shared database for all channels often results in different channels receiving conflicting data regarding supplies, which does not reflect the actual state of affairs. It is thus necessary to create a supply monitoring system that provides the same trustworthy information about the available supplies to all channels.

Issues relating to the effectiveness of all channels. This problem arises as a result of the inability to view the company as an integrated system. Splitting the company into separate channels may result in differences between their respective levels of effectiveness, whereby optimizations in some of the channels may lead to lowering the efficiency

of others. It is therefore crucial to fully integrate all of them and adopt a holistic perspective of the company (Neslin et al. 2006).
The most important challenges faced by logistics include:

- Full integration between the channels and the processes involved.
- Utilization of multiple channels for conducting sales and making the deliveries.
- Information flow and its homogenization at every step of the process (and within each channel).
- A unified customer service system affording maximum client satisfaction.
- Constant supervision and monitoring of the processes.
- Well-designed infrastructure of the warehouses.
- Supervision of the "last mile" in the sales process.
- Working out a multichannel yet integrated model governing product returns.
- All of the above accompanied by maximum cost-efficiency.

Considering potential problems that might crop up while implementing the Omnichannel strategy and the resulting logistical challenges, makes us realize how crucial it is to plan the entire process correctly. There is no universally applicable instruction on how to create and execute the strategy, but it is helpful to remember how important it is to be aware of the role of logistics in such an endeavor.

CONCLUSION

As the information discussed in this article indicates, there is a demand among the customers for the implementation of Omnichannel strategy in enterprises. This results primarily from the growing expectations with regard to the quality of services and customer satisfaction levels. The Omnichannel strategy requires well thought-out logistics, which is often under-appreciated by e-commerce companies and without which it is impossible to avoid many problems attendant on transforming a multichannel into an Omnichannel strategy. The main challenges for logistics include in particular, improving the quality of information, problems with the efficiency of the flow of goods, determining the volume of shipments and their valuation and integration of all sales channels into one system. Such a transformation is a very complicated and labor-intensive process, which yields results only after a considerable amount of time. However, if the system for the management of sales channels is planned and executed in a way that integrates them into a larger whole and takes into account the objectives of logistics, it will allow the company to implement successive channels while minimizing the required cost and effort. Full integration of all channels should become key in establishing a competitive advantage.

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