

INTERCONNECTION OF E-COMMERCE AND LOGISTICS: EXAMPLES FROM CROATIA AND TURKEY

Aleksandar Erceg

Josip Juraj Strossmayer University of Osijek, Faculty of Economics, Croatia

E-mail: aerceg@efos.hr

Zafer Kilic

Institute of Social Sciences, Hasan Kalyoncu University, Turkey

E-mail: zafeklcc@gmail.com

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Abstract

Development of technology and globalization have increased possibilities e-commerce is giving and with that enabled further advance of the world trade. E-commerce has changed the way the businesses run and has changed the way people buy things they need – from electronics and furniture to clothing and everyday groceries. With the e-commerce growth traders need to pay significant attention to their companies' important function – business logistics if they want to have satisfied customers.

Business logistics play important role in today's world connecting both sides of companies – suppliers and buyers and delivering ordered products within the agreed time, without damage and with the lowest possible costs. With the increase of e-commerce in Croatia and Turkey of utmost importance for traders is to choose a reliable logistics partner for deliveries to final customers.

This paper will analyze the connection between e-commerce and business logistics. We will examine the current situation of e-commerce in Turkey and Croatia and will analyze the importance of business logistics for further development of e-commerce. Although there is difference between countries they are still have possibilities for the further development of e-commerce and with that logistics which is interconnected with e-commerce. As result of this paper, we are proposing further research about the influence of e-commerce development of logistics.

Keywords: e-commerce, business logistics, sales, Turkey, Croatia

1. INTRODUCTION

Impact of the information technology in our lives is growing significantly and we are witnessing huge advances in commercial matters. New waves of e-commerce possibilities are available to buyers (final customers or businesses). With e-commerce, we are meaning sales based on the Internet. E-commerce is becoming one of the

biggest megatrends in the global economy (Kawa & Zdrenka, 2016) and it is affecting not only involved traders but also the logistics industry (Žurek, 2015). Global e-commerce turnover is growing over the last several years. In 2017 this growth was between 13-15% per quarter. By 2020 Internet global sales is expected to be around 4 trillion USD (eMarketer, 2018). As it can be seen from the data on growth and expectancy in 2020, e-commerce has become a business-as-usual (Bask, Liponnen & Tinnila, 2012) Therefore, it is of utmost importance for companies to understand how e-commerce will be developing in the future and how to prepare business logistics which is needed for reliability and competitiveness of company. Business logistics in the growing e-commerce plays an important role not matter if we are talking about business-to-business (B2B), business-to-consumer (B2C) or consumer-to-consumer (C2C) e-commerce activities. In all three types of the e-commerce, the delivery channel can be separated from the sales channel, so e-commerce opens for logistic companies a business opportunity. This is happening since logistic necessities are different in relation to traditional channels and most of the companies are not able to manage logistics by themselves (Delfmann et. al, 2002).

The main aim of the paper is to analyze business logistics in e-commerce in Turkey and Croatia and to make a comparison between these two countries. In the first part of the paper, we will define e-commerce and its influence on business logistics. In the second and third part, we will analyze the situation in the e-commerce sector and connected logistics services in both countries which will be compared in the fourth part. In the last part of the paper, we will make a conclusion and propose further research on this topic of growing importance.

2. E-COMMERCE AND BUSINESS LOGISTICS

2.1. E-commerce

Developments in Internet technologies have altered the way that trade is being made and changed business models to electronic commerce (e-commerce). E-commerce can be defined as the implementation of the customer's purchase of products or services via certain systems on the Internet. (Kau, Tang & Ghose, 2003). Wigand (1997) broadly defined e-commerce as an economic activity which is being conducted via an electronic connection. Delfmann et al. (2002: 208) defined e-commerce *as the electronic conduct of at least the initiation and agreement phase of an economic transaction via electronic networks that allow the automated processing of transaction data*. E-commerce can include an online electronic payment system as a vital prerequisite for further development (Jing, 2007). Maybe the best definition of e-commerce is given by Rob et al. (2009: 592) who stated that *e-commerce can be defined as the use of electronic networked computer-based technology to bring new products, services, or ideas to market, and support and enhance business operations*.

Since the commercial use of the Internet was permitted in 1990-ties, the use of e-commerce started at that time. Some of the first large multinationals to start using e-commerce were Amazon, Dell, and Cisco. Soon after many other companies started to commercialize on the Internet. Development of e-commerce can be presented in

three waves (Khaitan, 2016). The first wave started in mid-1990-ties when e-commerce was like a catalog with static pages and was simplified online commerce. The main function was to deliver content and contacts to buyers. The second wave is characterized by the possibility of e-commerce to handle transactions (buy and sell) electronically. PayPal was the first company which offered secure payment method for e-commerce. The third wave characterizes integration with business community (supplier and customers) and other stakeholders for exchanging and sharing information in real time. Supporters of industry organization propose together with economic efficiency theory that e-commerce can lower the transaction and search cost (Jansen & Sol, 2000). Use of e-commerce will, even more, accelerate and will give the power to the customers enabling perfect competition and thus reduce the profitability of companies and industry (Porter, 2001).

Since e-commerce has been gaining popularity as an important part of the economy, there has been also an increase of different e-commerce studies. Thus, there are more than several different e-commerce classifications. (Table 1)

Table 1. E-commerce model classification

Types of E-commerce	Models Description
Business-to-Customer	mainly for home shopping, banking, online brokerage, travel.
Business-to-Business	estimated about 75% of E-commerce
Business-to-Employee	Intra-network which allows companies to provide products and/or services to their employees
Business-to-Manager	finding out the information on the net and earning commission by providing services for enterprises
Business-to-Government	tendering via E-commerce, e-Customs
Customer-to-Business	refers to a group of individuals forming a buyer group to transact activities with businesses
Consumer-to-Consumer	an online community for research, sales or exchange
Government-to-Government	e-Government, On-line school, Global ICT planning and implementation
Government-to-Citizen	e-Votes, Travel information Kiosk, Electronic licenses renewal
Government-to-Business	online non-commercial interaction between local and central government and the commercial business sector
Government-to-Employee	online interactions through instantaneous communication tools between government units and their employees
Peer-to-Peer	distributed application architecture that partitions tasks or workloads between peers

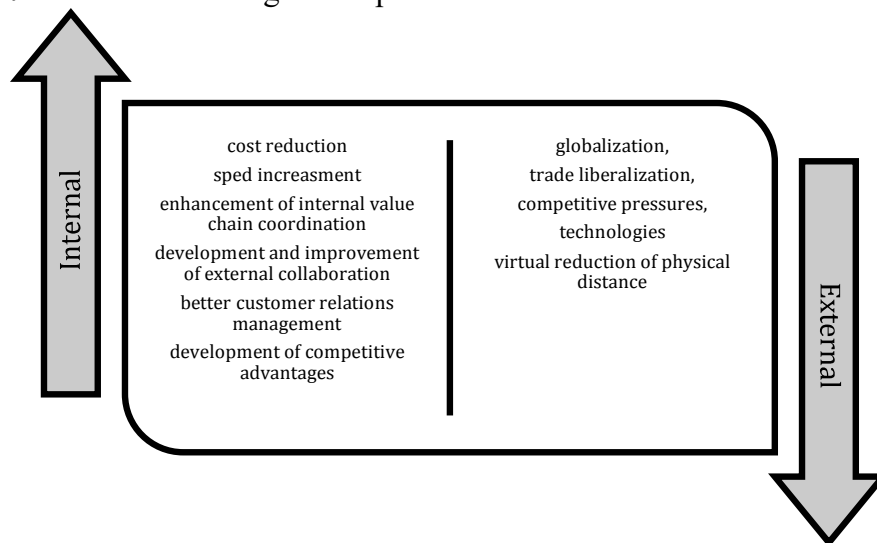
Source: adapted from Kinder, 2002; Nemat, 2011

Different authors (Rappa, 2006; Samuelson, 2010) mention other types of e-commerce such as brokerage model, advertising model, merchant model, affiliate model, manufacturer model, community model, subscription model, infomediary model and utility model. Abdolahi and Leimstoll (2011) further established classification criteria for e-commerce business models based on value chain flow.

In the further part of our paper, we will look upon the Business-to-Business and Business-to-Customer e-commerce business models since they have the biggest impact on the market and on the global trade. In B2C e-commerce business model all transactions happen on the business website and in this model, a buyer visits a company's website where he places the order. Company after it processes the order, clear the payment delivers the goods (Mangiaracina et. al., 2015). In B2B, one company makes a transaction with the second company. The typical supply chain involves several B2B transactions (raw materials, components, etc.) and one B2C - sale of the final product to the customer. This makes B2B transactions much riskier and is the reason why wrong product purchase can put in jeopardy whole business (Sila, 2013).

Companies are under influence of several internal and external factors which drive them toward developing and adopting e-commerce. (Figure 1) The internal company drivers create new possibilities and challenges while trade liberalization, globalization, technologies, competition are external.

Figure 1. Factors influencing development of e-commerce



Source: Desruelle & Burgelman, 2001

According to Rushton et. al (2006: 4) logistics is the sum of supply, material management, and distribution. Ballou (1999: 6) defined logistics as *planning and controlling efficiency, reducing costs, raw materials, semi-finished products and stockpiling of products*. Žurek (2014) state that e-commerce represents a new distribution channel for the companies and it can create an opportunity which has changed logistics processes. Because of e-commerce, many existing retail channels were integrated within different complex systems of distribution which are at the same time offering products offline (in different store types) and online (with use of mobile

and Internet technologies). Today we are witnessing a yearly increase of revenue from e-commerce and many transport service providers and retailers (multi- or omnichannel) are starting to realize what e-commerce will bring to them and what can be their role (Kayikci, 2018). E-commerce also stresses the potential influence on logistics companies and their business opportunity since the logistic requirements are different from those in traditional channels. And what is important for logistic companies that retailers cannot manage it by themselves (Delfmann et. al, 2002). Logistics in e-commerce is the advanced form of traditional logistics that offers more information and service (Bayles, 2001:3).

Today's e-commerce tools and technologies have great potential for transparency and for efficiency which can influence change in supply chains and create alternatives to today's businesses. This will create changes in today's distribution channels and include new intermediaries. E-commerce today is already complementary retail point for traditional retailers. Thus, logistics will become an important part of competitiveness in e-commerce which is requiring constant improvement. It is important to state that e-commerce is changing daily due to the emerging trends which have been subject of discussion and research in the recent years (Kayicki, 2018). Those trends include cloud computing, mobile applications, personalization for customer engagement, big data, social networks.

2.2. E-Commerce Impact on Logistics

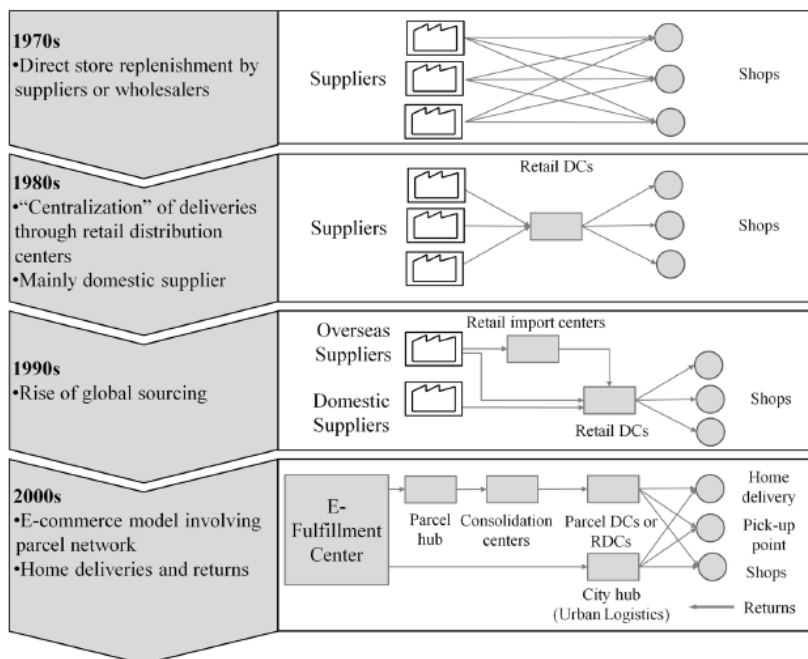
The emergence of e-commerce created new opportunities for logistic companies but also new challenges. The connection between e-commerce and logistics has gained momentum among academia and recently one can find many different studies on that topic (Bask, Liponnen, Tinila, 2012; Žurek, 2015; Yu et. al, 2016). Delfmann et al (2002) studied the influence of e-commerce on logistic services and concluded that there are two main categories of e-commerce influence: the elimination of the elements of the supply chain and the rise of e-marketplace. Robinson (2014) because of e-commerce influence state four distinct types of logistics functions which are being set up

- Mega e-fulfillment centers where the merchandise is stocked and picked at the item level.
- Parcel hubs/sortation centers which sort orders by postcode so that they can be delivered to the relevant parcel delivery center for final delivery to the customer's home or designated collection point.
- Parcel delivery centers which handle the 'last mile' delivery to the customer
- Seamlessly integrated technology where shopping carts connect via API, web XML or some other connection to a transportation management system, so shoppers are getting the exact price quote of shipping of larger items more suited for less than truckload modes, as these technology products for logistics, such as a TMS, must accomplish along with the shopping cart for better management.

Kayicki (2018) studied the evolution of logistics and supply chain and connection to the e-commerce. (Figure 2) Evolution of logistics and supply chain

started during 1970-ties when direct deliveries from wholesalers and/or suppliers were replenishing the stores. In the next decade centralization of the stores, deliveries started with the emerging of the distribution centers which were controlled by the stores. This phase is characterized by having mainly the domestic suppliers. Global sourcing which emerged in 1990-ties and many retailers developed their import centers to receive deliveries of non-food products in containers. From the start of the 21st century, because of retailers' rapid development and expansion of e-commerce new ways were established for distribution networks for e-fulfillment.

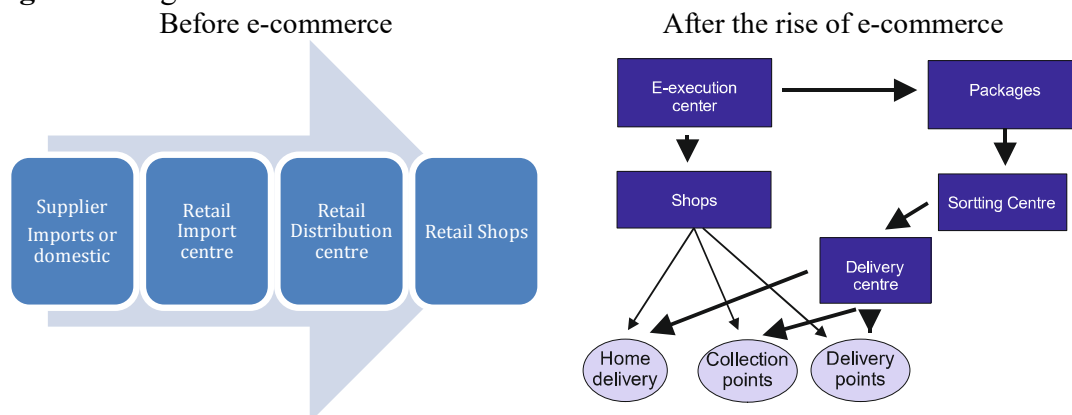
Figure 2. The evolution of logistics and supply chain



Source: Kayicki, 2018: 5368

The emergence of e-commerce created new opportunities for logistic companies but also new challenges. Influence of the e-commerce on the logistics is shown in Figure 3.

Figure 3. Logistics before and after the rise of e-commerce



Source: Euromonitor, 2018

As it is shown, before e-commerce process of logistics was straightforward – everything went in “in line”. After the e-commerce process changed its direction and now there more than one “line” of the process. Cho, Ozment and Sink (2008) state that e-commerce companies with robust logistics competencies have a higher prospect of generating a competitive advantage and can improve their performance. In an e-commerce business, environment logistics service is equal to operations, collaborations and marketing services (Yang, Humphreys, McIvor, 2006). Micu, Aivaz and Capatin (2013) conclude that quality of logistics services is differentiation tools and critical success characteristics for influencing levels of e-customer satisfaction and their retention rates. Bask, Lipponen and Tinnila (2012) elaborate two important characteristics of the e-commerce logistics. First is the market. While in conventional retail customers of logistics service providers (LSP) are only companies, in the e-commerce consumers are also customers. Second is the LSPs role. Since the e-commerce delivery channel is separated from the sales channel, everyone can sell their products globally. This is creating a huge opportunity for LSPs to offer their services. There are different logistics capabilities which can create service quality and Ocicka and Razniewska (2016) defined each of them. (Table 2)

Table 2. Logistics capabilities in the e-commerce market

Capabilities	Definitions
Pre-sale customer service	The ability to service the customer during the purchase decision process (i.e. before the customer buys the product)
Post-sale customer service	The ability to service the customer after the sale of the product to ensure continuing customer satisfaction (i.e. return product handling)
Delivery speed	The ability to reduce the time between order taking and customer delivery
Delivery reliability	The ability to exactly meet quoted or anticipated delivery dates and quantities (i.e. deliver correct orders on time)
Responsiveness to target markets	The ability to respond to the needs and wants of the firm's target markets (i.e. handle small, frequent orders)
Delivery information communication	The ability to communicate shipping and delivery information to and from customers
Web-based order handling	The ability to handle and fill orders using a web-based order handling system. This also includes logistics information sharing with other channels
Widespread distribution	The ability to effectively provide widespread and/or intensive distribution coverage
Global distribution coverage	The ability to effectively provide global distribution coverage

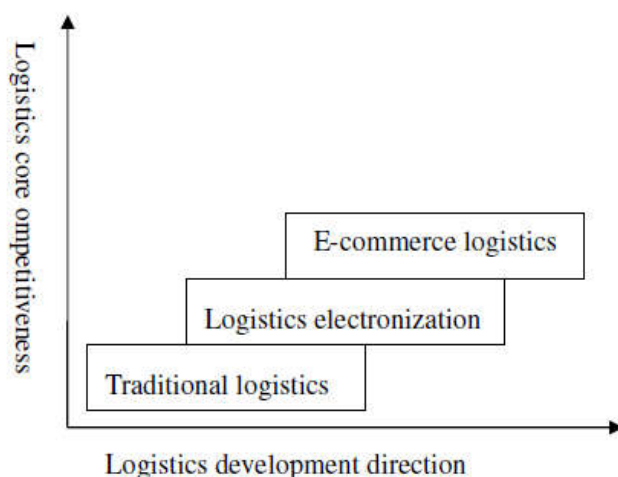
Selective	The ability to effectively target selective or exclusive distribution outlets
Low total cost distribution	The ability to minimize the total cost of distribution

Source: Kayicki, 2018: 5368

All above stated logistic elements are important for the competitiveness of the e-retailer and this is only confirming interconnection between e-commerce and logistics. Euromonitor (2016) in its research about the future direction of global logistics state that if logistic companies want to succeed in the future they need to adapt to (i) innovative technologies; (ii) serving multiple channels; and (iii) rise in e-commerce. For e-commerce part, retailers are facing increasing frequency of order numbers and return rates, which leads to demand for advanced inventory management by logistics companies. On the other hand, Internet giants are starting to vertically integrate logistics operations and to build interconnected inventory system for minimalization of logistics costs, thus increasing competition for specialized logistics companies. (Euromonitor, 2016)

Importance of logistics for e-commerce can be seen in the results of the research conducted by Shopper's Mind – sMind Hrvatska (Omrčen, 2017). According to their study e-commerce development brought significant challenges but also huge opportunities for the logistics sector. The question of delivery is high on the priority list of the shoppers (one-third of them) and is one of the most important factors for the decision-making process. For instance, in USA Amazon is offering same-day delivery for orders above 35 USD in 27 states. Hou (2014) state that logistics has been developing together with the e-commerce and we are witnessing three development phases – traditional logistics, logistics electronization and e-commerce logistics (Figure 4).

Figure 4. Development stages of e-commerce logistics



Source: Hou, 2014: 3751

Digitalization in logistics is important for time optimization of the supply chain since everything can be compensated except lost time. This process is tightly

connected with IT services and is following the trend of their development. Thus, logistic will keep developing to follow trends in the market and trends of e-commerce development. Finally, logistic companies should work together with e-commerce companies to among other (i) formulate direct transfer strategic scheme; (ii) perfect laws and regulation connected with e-commerce logistic management; (iv) innovate e-commerce logistics management skills and (v) strengthen the construction of informatization system (Wang, 2017). Yaakub (2014) studied the connection of e-commerce features and logistic changes. (Figure 5)

Figure 5. E-commerce features and logistic changes



Source: Yaakub, 2014: 13

E-commerce and logistics are significantly interconnected, and e-commerce will create new chances for companies in the logistics. Thus, the logistic companies will need to become more efficient and effective in all fields since this will be crucial for their success. Changes which logistic companies will need to accept will also change the way how they do business if they would like to stay competitive.

3. E-COMMERCE IN TURKEY AND CROATIA

In the next part of the paper, we will analyze e-commerce in Turkey and Croatia and will make a comparison between these two countries.

3.1. E-commerce in Turkey

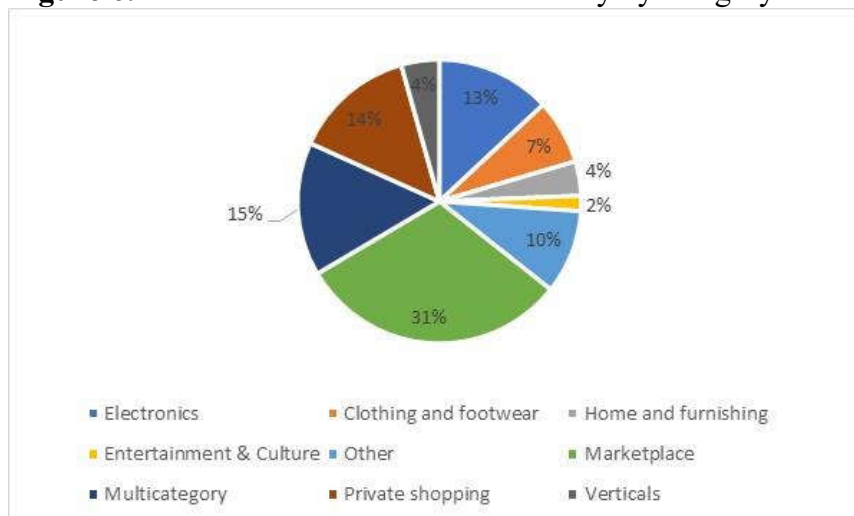
Internet in Turkey was first used in 1993. In 1996, the Internet, which started to be served in houses, changed people's usage purposes from day to day. With the rapid development of Internet usage and communication technologies in the world, a new economic order is spreading. In parallel with this, naturally, the geographical

boundaries have been lifted, the markets where buyers and sellers meet have gained a different scope and sellers have shifted their commercial activities to web-based systems by accepting customers from all over the world (Civan & Bal, 2002: 1011). Since the 1990-ties, e-commerce has begun to take place in a serious sense and has tended to rise rapidly from the beginning of the 2000's. Conventional trade is constituting 98.3 % in Turkey's trade. Internet trading is also increasing day by day, showing the same parallels with technological developments (eTR, 2013).

While e-commerce was 2.414 billion EUR in 2010, it reached 1.572 billion EUR turnover only in the first two months of 2015. Two key factors in this increase are customer numbers and customer trends. Turkey is a country that is rapidly growing in the e-commerce area. Currently, the e-commerce turnover represents 4.1 % of total Turkish trade sector turnover (Deloitte, 2018). Although there is significant growth in the Turkish e-commerce sector, this number is still below the world's average. Presently there are more than 31 million e-commerce users in Turkey and by 2021 this number should be almost 38 million users. These users should spend by average 240 EUR online in 2021 (Eshopworld, 2017).

In 2014, e-commerce in Turkey was worth 6.34 billion EUR after a 35 percent growth the year before. Turkish Industry and Business Association reported that the e-commerce industry in Turkey was worth 7.95 billion EUR in 2016. According to information from ETID and the E-commerce Foundation, e-commerce in Turkey was worth 8.5 billion EUR in 2015 and by the end of 2018, this number should grow to 10 billion EUR (Ecommerce News, 2018). Almost half of the Turkish inhabitants ordered something online and bought clothes and sports goods. Another popular product category is electronic equipment, followed by household goods and travel arrangements. Media and electronics are leading product category in Turkey with 2.1 billion EUR market share followed by Furniture and appliances category which generates almost 1.1 billion EUR (Eshopworld, 2017). According to estimations Electronics and Media will still be the most purchased category with a value of 3 billion EUR, and Furniture and appliances will have an expected worth of 1.9 billion EUR. Shares in Turkish e-commerce market are presented in Figure 6.

Figure 6. E-Commerce market size in Turkey by category



Source: adapted from Deloitte, 2018

According to an interview with the CEO of Turkish online payment provider Iyzi Payments, the most common online payment methods are card payments: loyalty cards with payment by installment options, Mastercard (43% of users) and Visa (43% of users) (Eshopworld, 2017). But also, companies like PayPal (which ceased operations in Turkey in June 2016), BKM Express, ipara and Paytogo are gaining ground in Turkey. Internet card payments (not only for e-commerce) grew to 10 billion EUR in 2012 (an increase of about 30%) and this number was expected to be more than double by 2015 (E-commerce news Europe, 2017).

Turkey, in terms of Internet users and the digital world, is now among the world's top 10 countries. When we look at the number exceeded 40 million Internet subscribers in Turkey and considered the year-end 2014 increased by 26.6% growth in data occurred. The increase in the number of Internet users means the increase of e-commerce customers either directly or indirectly. The increase in the use of mobile devices in the last one year has contributed to both the increase in popularity of virtual loyalty and the growth of e-commerce positively. Due to the technological development of e-commerce to reach saturation point in emerging countries such as Turkey, it is needed a trigger progress in this area. Furthermore, with this progress, the user of every mobile device is an e-commerce customer candidate (Uslu, 2014). To learn more space than market globalization with the help of e-commerce in Turkey, it should be shared and received all the companies, especially small and medium-sized enterprises, to increase the power to compete Short Term Action Plan in the development of e-commerce in Turkey (DPT, 2005: 125).

Most of the Turkish logistics activities are outsourced. In some sectors (consumer products, high-tech and fashion) only 20% of companies have their own logistics operations. Almost 50% of outsourced activities is done through “dedicated suppliers” – i.e. partners being trusted by the retailer, while only 30% of outsourced logistics being handled by regular 3PL (Siromjatnikova, 2017). Further development of the e-commerce market in Turkey will produce a wide range of possibilities for small and medium carriers including fulfilment, package processing, and delivery. Based on similar experience from other countries, Turkey will need to conduct significant investments in warehousing and fulfilment center operations, so logistics will be able to follow e-commerce growth.

3.2. E-commerce in Croatia

E-commerce is present in Croatia and is slowly picking trends available worldwide. As in other countries, e-commerce in Croatia was topic of research among academia (Babić, Krajinović & Radman Peša, 2011; Panian, 2013) and practitioners (Shoppers Mind – Smind, 2016; e-commerce Hrvatska, 2017; Shoppers Mind - Smind, 2018). For the analyses in this paper, we used data from research conducted by Croatian e-Commerce association from 2017. The sample of research consisted of 140 of the Croatian e-Commerce association members.

At least six out of ten Internet users bought something once per month online in Croatia in 2017 which represents an increase of 9% in relation to a previous year. This means that there were more than 250.000 new online buyers in Croatia in 2017 (Ivezić,

2018). The current value of the e-commerce market in Croatia is around 413 million EUR (Statista, 2018a).

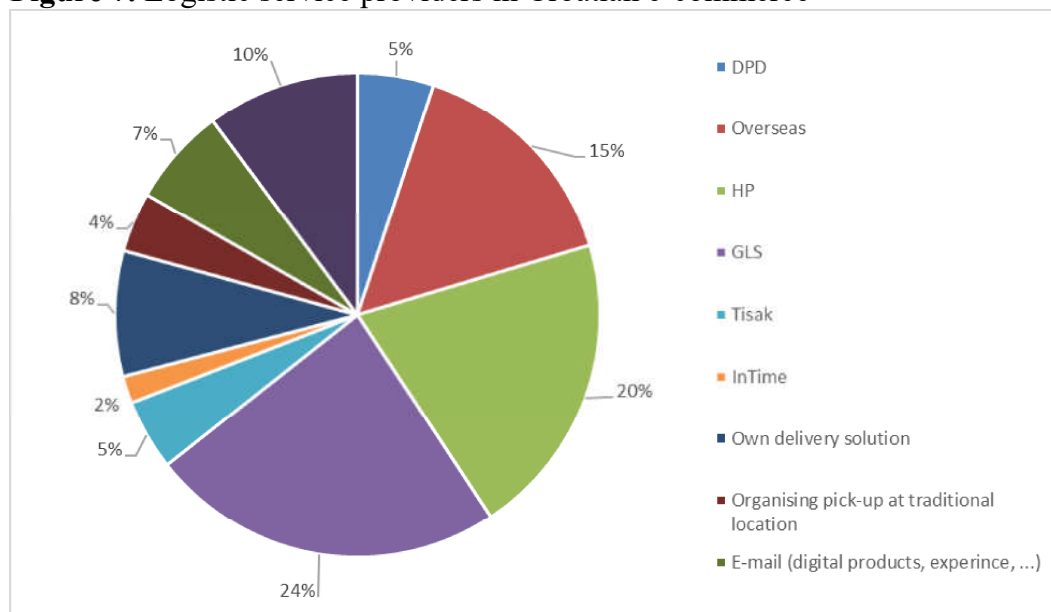
Based on data from Croatian e-commerce association (2017) most of the e-retailers are selling physical products (79%), followed by service (10%), digital products (9%) and experience (2%). Among product categories most sold is technology and equipment (32%) followed by food and FMCG products (14%) fashion (14%) toys and gifts (14%) and children products (6%).

E-retailers in Croatia are small to mid-size based on a range of products they have – 28% have up to 100 products, 59% from 100 to 10.000 products and only 13% have more than 10.000. Based on their turn-over most of the e-retailers (48%) have less than 40.000 EUR yearly turn-over, followed by e-retailers with turnover from 150.000 to 400.000 EUR (20%) and by e-retailers with turnover from 40.000 to 150.000 EUR (14%) and more than 400.000 EUR (14%). Most of the e-retailers (47%) are oriented only on e-commerce while 11% have the intention to open a classical retail location soon. Research showed that e-commerce is influencing positively to turn-over in classical locations of retailers.

Almost third of Croatian e-retailers (27%) do business only in Croatia due to the high logistic costs of delivering product abroad, while 38% plan to expand their business outside of Croatia. Remaining 35% is already selling its products on international markets. This is an area where the influence of e-commerce on logistics can be seen since new channels and new logistics service providers can lower the transport costs. Due to the lack of confidence in e-retailer Croatians prefer payment upon delivery but only 25% of e-retailers is offering such a possibility. The most present way of payment is money transfer in advance (31%), followed by credit card payments (21%) and PayPal (10%).

E-retailers were asked about logistics service providers they use for delivering their products. (Figure 7)

Figure 7. Logistic service providers in Croatian e-commerce



Source: e-commerce Hrvatska, 2017

Most of the e-retailers use GLS (24%) as their logistics service provider and they are followed by Croatian post (20%) and Overseas (16%). It is important to state that 12% of e-retailers developed their own delivery solution admitting that logistics is an important part of e-commerce. On the other hand, there is 4% of e-retailers who don't offer a delivery service but insist for customers to come to their traditional location for pick-up.

Croatian e-retailers stated administration problems, lack of employees, often changes in legal regulation which destabilizes business, lack of customers trust as barriers to further development. Most of the Croatian buyers prefer to buy on international web shops in relation to Croatian ones. Also, according to the Euromonitor top three e-commerce destination of Croatians are Amazon, eBay and Croatian e-retailer eKupi on third place. As an opportunity for further development of Croatian e-commerce research showed lowering the costs of delivery from Croatia to abroad. This opportunity is again showing interconnectivity between e-commerce and logistics at least in Croatian case. Smind (Ivezić, 2018) state four trends in Croatian e-commerce which represent opportunities for further increase of e-commerce: (i) enlarging the product categories purchased online, (ii) increasing trust in credit card payments, (iii) increasing purchase over mobile phones and (iv) asking for a recommendation before purchase.

3.3. Comparison

In both examined countries e-commerce is in growth, but it is not developed as it is in western countries. Both countries face certain barriers to further growth such as lack of employees and changes in legal regulation but also due to changes in technology both have significant possibilities for e-commerce increase.

Table 3. Comparison between two markets

Characteristics	Croatia	Turkey
Number of e-commerce users 2018	1.77 million	31.39 million
Number of e-commerce users 2022	1.92 million	38.11 million
Internet usage / Age groups		
16-24	100%	95%
25-34	97%	91%
35-44	93%	87%
45-54	85%	77%
55 -	77%	N/A
Revenue in e-commerce market in 2018 (EUR)	413 million	6.295 billion
Expected annual growth rate (CAGR 2018-2022)	8.0%	12.1%
Expected market volume in 2022 (EUR)	561 million	9.928 billion

Largest market segment	Electronics and Media	Electronics and Media
User penetration in 2018	66.5%	47.9%
User penetration in 2022	70.7%	50.4%
Average revenue per user in 2022 (EUR)	256.00	217.20
Online purchases devices		
Desktop	90%	76%
Smartphone	6%	16%
Tablet	2%	3%

Source: adapted from Eshopworld, 2017a; Eshopworld 2017b; Statista, 2018a and Statista, 2018b

Although Turkey is a significantly bigger country with almost 80 million inhabitants and with more e-commerce users, Croatia has a higher percentage of e-commerce users and according to the Eshopworld (2017a, 2017b) will be spending more on average e-commerce purchase per shopper in 2022. Daily online shopper Internet usage is higher in Croatia than in Turkey and is almost 100% until the age group of 35-44. There is a bit lower usage in older age groups while in Turkey there is lower Internet usage of a daily online shopper in all age groups. Due to the less developed e-commerce market, there is a higher expected annual growth rate in Turkey (12,1%) than in Croatia (8.0%). According to available data, Turkey is expected significant e-commerce market increase (50%) in next few years while in Croatia this growth will be moderate (25%).

When comparing e-commerce growth, we can notice that e-commerce has faster growth in Turkey where there are more inhabitants and as it was stated user of every mobile device is an e-commerce customer candidate. Customers in Croatia mostly buy technology and FCMG goods while customers in Turkey mostly by clothing and sports goods online. Croatian customers mostly use international e-retailers for online purchasing and in Turkey, the trend is the use of domestic e-retailers.

E-commerce customers are using mostly the same ways of payment (different digital wallets options – 86 % in Turkey and 53% in Croatia). PayPal is used also in Croatia (25%) while in Turkey they stopped offering their services in 2016. In Turkey, we are witnessing a development of different domestic payment platforms (6% of total payments) which are not present in Croatia. Croatia has still a strong category of payments on delivery (22% of all payments)

Logistics services connected to e-commerce in both countries are developing due to the technology developments and due to the changes in customer behavior. E-retailers in both countries are using mostly the same international logistics service providers but there is also movement and development of national logistics service providers. As it is the case in Croatia, some of the Turkish e-retailers are developing their own logistics services to be a one-stop-shop for their customers. This is as it is in Croatia a smaller number of e-retailers while the majority is using services of logistics service providers. Croatian e-retailers see their chances for further growth in lowering prices of shipping goods from Croatia to abroad which is currently one of the major obstacles. Due to the size of Turkey, their e-retailers see chances for further growth within the country but also look for their expansion abroad. Also, Turkey will

need to invest significantly in creating logistics support for further growth of e-commerce.

4. CONCLUSION

E-commerce tools and technologies have great potential for transparency and for efficiency which can influence and is influencing changes in supply chains and create alternatives to today's businesses. This is creating changes in today's distribution channels and is including new intermediaries.

Development of logistics services is under influence of e-commerce development and due to the further technology development, we can expect that this influence will even bigger in time to come. New technology trend will enable logistics service providers to adapt to changes in e-commerce.

In the e-commerce time, logistics and logistics service provider will have a bigger impact since there is a new part of the equation – customers. Customers want to have good as soon as possible with the lowest possible price and they want to be able to return the goods if they are not in accordance with their wishes. Thus, we are witnessing changes and further development of logistics to the so-called e-logistics which are offering more delivery options and/or pick-up to the customer who now has a bigger impact in the whole process.

Examined countries showed an increase of e-commerce activities and turn-over and the need for adaptation of logistics service providers to be more competitive and to be able to answer to the demand from both sides – e-retailers and customers. Both countries are still in the development phases of e-commerce activities and their e-retailers faces several obstacles but at the same time, there is significant potential for further growth.

We propose further research in both countries to check the further development of e-commerce and e-logistics. It would be of interest to conduct a study and compare more countries to check how the neighboring countries are developing interconnection between e-commerce and logistics and how the being member of EU influences development of logistics service providers connected to e-commerce.

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