

THE IMPORTANCE OF TRADE, RETAIL AND LOGISTICS - THE CASE OF THE REPUBLIC OF CROATIA

Zdenko Segetlija

J.J.Strossmayer University of Osijek, Croatia

E-mail: seget@efos.hr

Jelena Franjković

J.J.Strossmayer University of Osijek, Croatia

E-mail: jelenaf@efos.hr

Received: May 30, 2019

Received revised: August 29, 2019

Accepted for publishing: September 5, 2019

Abstract

The lack of harmonization between retail capacity (in quantitative terms) and the level of economic development of the Republic of Croatia was the incentive for this research paper. It is necessary to analyse the economic structure on the one hand, and the development of retail trade in a qualitative sense on the other. The aim of this paper is to evaluate the importance of trade and retail logistics in the development of the Croatian economy. The purpose of this paper is to highlight the importance of retail logistics in the development of contemporary retail formats. Therefore, based on the available literature, the paper firstly analyses the characteristics of retail logistics and its importance in the development of new retail formats. Furtherly, based on the available secondary sources (Eurostat, Deloitte, GfK GeoMarketing and others), the paper analyses the retail importance and development for the Republic of Croatia and other selected European countries. Data are analysed and graphically presented by usual statistical methods. New development processes arising from retail development 4.0 also provide new insights into the retail formats and distribution channels. They certainly should be applied when assessing retail development and the role of retail in future economic development in a particular country. Therefore, the future of retail logistics is also perceived from the way of solving contemporary economic problems. Obtained findings should enrich the understanding of new development opportunities in certain countries and regions, at the base of new retail formats, retail logistics and contemporary supply chain management. Furtherly, they should also enrich the existing knowledge about the possibilities of economic policy action on the development of retail forms. The main research limitations arise from the lack of recent data on retail capacity and new retail formats (especially those on online retail capacity).

Key words: retail logistics, supply chain management, economic structure, retail development, the Republic of Croatia

1. INTRODUCTION

This paper addresses the importance of retail and trade logistics. The starting point is the importance of trade in the economy of a country. In every national economy, trade has long been known as (Alfier, 1967): (a) a precondition for functioning, (b) an essential component of structure; (c) the relevant measure of development; (d) a significant development factor. Based on the historical analysis of trade, it was concluded that its importance in the national economy was steadily increasing, as trade was constantly taking over new tasks and functions. This is related to the processes of concentration, cooperation and new ideas. Namely, it has been recognized that only competitive advantages are not sufficient to ensure the development of a trading company, but innovations also need to be introduced (cf. Oehme, 1983, pp.36 - 72).

Concentration processes are especially important because they have enabled the development of new retail formats. In market-developed countries, these processes accelerated as early as the mid-1960s (see Beckermann & Rau, 1977, p. 39). In the processes of concentration, but also of cooperation, vertical marketing systems are developing, which are becoming increasingly important (Barth et al., 2002). Corporate, administrative and contract vertical marketing systems are usual nowadays (Kotler & Keller, 2006, pp. 486 - 488) and particularly interesting for this paper are vertical marketing systems run by retailers (e.g. retailers' cooperatives). In all these processes of retail development and new retail formats, trade logistics is of particular importance, as it enables the trade to perform its basic functions: bridging time, bridging space and creating product assortment. Therefore, the impact of trade logistics on retail development and new retail formats deserves special attention.

The share of gross domestic product (GDP) of trade in total GDP in a single economy can be taken as an indicator of the importance of trade in the national economy (Knežević, 2011) or the share of gross value added of trade in total gross value added. Data from Eurostat (according to NACE, Rev 2G) refer to distributive trade - Section G - Wholesale and retail trade; repair of motor vehicles and motorcycles; and to its components:

- Division 45 - Wholesale and retail trade and repair of motor vehicles and motorcycles;
- Division 46 - Wholesale trade, except of motor vehicles and motorcycles;
- Division 47 - Retail trade, except of motor vehicles and motorcycles.

There are different indicators of the importance (significance) and the development of retail in a national economy (Segetlija, 2012, pp. 56-60). In this paper, the following indicators of the importance of trade and retail are selected:

- share of trade in gross value added;
- share of retail in gross value added;
- share of retail turnover in gross domestic product.

The development of retail sales in the Republic of Croatia and the selected European countries in this paper is analysed based on the following indicators:

- sales area per capita;
- share of retail turnover via mail and Internet in total retail.

The quality of trade logistics will be represented in this paper by the Logistic Performance Index (LPI) published by the World Bank in Washington. This index is calculated based on a specific questionnaire for logistics service companies and performance ratings. The LPI is calculated for 160 countries, which can then be compared. This index shows the achievement of the quality of domestic logistics companies, but it is also an important indicator for the cooperation of international companies, and thus especially important for assessing the conditions for economic development in a particular country (Weltbank Logistics Performance Index 2018: Österreich mit Platz 4 Weltspitze). LPI value is derived on accurate measurement and using grades 1 to 5 for six key factors (Zekić et al., 2017, pp. 93 – 95; Weltbank Logistik Performance Index 2018: Österreich mit Platz 4 Weltspitze, 2018):

- the efficiency of customs procedures and enforcement of customs regulations;
- quality of trade and transport infrastructure;
- competence and quality of logistic services: transportation by trucks, freight forwarding services and customs procedures (logistic competence);
- simplicity and prices for international shipments;
- tracking & tracing capabilities;
- the frequency of achieving the scheduled delivery time to the recipient (timeliness).

In the analysis of the importance and development of retail and trade logistics, the data for the Republic of Croatia (HR) and selected European countries (commercially and economically developed countries and transition countries) were used. Selected countries for comparison with the Republic of Croatia are Austria (AT), Germany (DE), France (FR), United Kingdom (UK), Italy (IT), Estonia (EE), Hungary (HU), Poland (PL) and Bulgaria (BG).

2. RETAIL FORMATS AND RETAIL LOGISTICS

Since retail development refers to changes in retail formats in the retail structure, it is necessary to list those formats, and then to emphasize the importance of retail logistics in creating and developing retail formats.

2.1. Retail formats

The following retail formats are considered in this paper (usp. Segetlija, 2012, pp. 16-26):

- a retail business (retail by an independent owner and so-called corporate retail);
- retail "facility" (so-called sales line, one or more business units);
- retail business unit (in-store or out-of-store business unit or business unit containing both channels);
- retail service;
- product groups or individual items (so-called categories).

With the development of concentration, corporate retail is gaining importance. It includes (Kotler & Keller, 2006):

- corporate retail chains;
- voluntary chains;
- retailer cooperatives (headquarters);
- consumer cooperation;
- franchise organizations;
- sales conglomerates.

The retail format deserves special attention in this paper. It is the integral result of the following decisions (Lerchenmüller, 1992; Lerchenmüller, 2003):

- on functions (task-based);
- on instruments (marketing);
- about the factors of the workflow (as an organizational solution).

The retail format can be taken as a group (category) of retail formats with the same or similar marketing instruments, related to (Eitner et al., 2008): profession, location, size of sales area, dimensions and composition of the product range, services, method of contact with customers and pricing. This represents the retail mix, appearing in retailers' retail formats (Lewy & Weitz, 2012). However, in designing retail format, logistical considerations are important as well, since business logistics is about flows (material, value and information) and organizational solutions are important.

The terms "retail format" and "retail store type" are generally understood as synonyms, but there is also an understanding according to which "retail format" is taken in systematics that crosses the boundaries of a trading company. According to this view, "retail store type" refers to their systematization of business units within a particular trading company (Ahlert & Kenning, 2007). There are various systematizations of retail formats (see Segetlija, 2012, pp.21 – 25; Gittenberger et al., 2013, p.12). However, the difficulty in systematization is represented by the integration of functions, since retail via mail and the Internet also include wholesale functions. Therefore, flows within distribution channels are important as well.

On the other hand, the logistics point of view of retail format design is related to the supply chain management within which they operate. Specifically, a large retail company can dominate the supply chain and manage not only distribution channels, but also upstream flows. This emphasizes the importance of large retail chains in managing and integrating all echelons in the supply chain. In this way, they direct and develop the production itself.

There are many communication, sales and logistics channels in the managing retail format in supply. Thus multichannel retail is developing within which the retail format, in addition to the stationary retail, is also performing electronic (Internet) retail. However, multiple channels can be used within electronic retail as well. Contrary to the traditional multichannel system, multichannel retailing means that at least one channel of a company is a stationary store and one other channel of the same company is an online store (Heinemann, 2008). Furthermore, there is also a cross-channel retailing, when Internet retail integrates with the physical store and the catalogue retail (Groß et.al, 2014). Ultimately, the integration of communication channels can develop omnichannel retail, with full integration of all channels. The

individual characteristics of a retail format, given the above mentioned cross-channel options, create its "business model". The application of contemporary information technologies in integration with business partners is essential for the business model (Bosilj-Vukšić & Kovačić, 2004). Therefore, electronic retail can also be defined as a retail channel, and no longer just a retail format (Levy & Weitz, 2012).

In the selected business models, business processes are improving and thus the overall value chains. A retail company realizes its competitive advantages based on its size and market power (large stores, branch companies, etc.). However, the emergence of new business models creates competitive pressure on conventional, stationary retailers, who find themselves in a new competitive situation, which encourages adaptation processes (Leukert & Gläß, 2017). Such developments indicate the importance of retail logistics in new models of distribution channels. They are developed within retail supply chains, i.e. supply chains run by large retailers. Their importance arises from the fact that they can affect all other upstream supply chain members (e.g. manufacturing companies, logistics service companies, various intermediaries, etc.).

2.2. Retail logistics and its importance

Trade logistics is rarely explicitly defined. The reasons for this may be the characteristics of the logistics that cross the boundaries of particular sectors or companies. Therefore, trade logistics can generally be defined as follows (Toporowski, 1996, p. 12): „Trade logistics covers all activities of planning, managing and controlling the flow of goods from suppliers to customers, i.e. delivery of right goods in right condition, right packaging, at the right time, in the right quantity, in the right place and at the lowest total cost for the company”.

In the contemporary stage of business logistics development related to supply chain management, Kotzab (2012, p. 212) state that “trade logistics involves the integrated planning, implementation, design and control of total flows of goods and related information between a trading company and its suppliers, within a trading company and between a trading company and its customers”. According to the same author (Kotzab, 2012, p. 213), trade logistics is a complex logistics system. Depending on the retail format, the flow of goods and related information can pass many intermediate stops from suppliers to final consumers. Therefore, trade logistics is in many cases a multi-tier logistics system. It covers all activities of a trading company to secure the procurement of goods according to the wishes of customers and to prepare and deliver the goods to retail stores or directly to customers (Krampe & Lücke, 2006, p.26).

Considering the different stages of material flows (from the supply market to the sales market and back), the decisions in the field of supply logistics, distribution logistics and disposal logistics come into focus in trade logistics. These decisions can also be seen as an expression of marketing logistics (Kotzab, 2012). It can be pointed out that many trading companies have focused their logistics on a just-in-time principle.

Since business logistics in the contemporary stage of its development is oriented towards flows that cross the boundaries of companies, trade logistics refers to the

concept of supply chain management (SCM) as well. The retail format is important for trade logistics because logistics tasks that need to be performed, especially differ among various retail formats (Hoffer, 2009, p. 112). It was already pointed out that there is a multiplicity of communication, sales and logistics channels in the functioning of the retail format in the supply chain.

The importance of trade logistics stems from the importance of trade itself in the national economy. Such considerations particularly show data on the share of trade in a country's gross domestic product and the share of trade logistics in the overall logistics market of a country (Kuhn et al., 2018, p. 718). In this regard, it is believed that logistics activities will continue to gain in importance in the future due to increasing competition and the development of online retail. Therefore, for many trading companies, logistics will become a central factor in competition. This problem will be solved by trading companies either by developing logistics in their own company or by using the services of logistics companies.

3. CONTEMPORARY DEVELOPMENT PROCESSES

In considering contemporary development processes, the agrarian, industrial and digital revolution are discussed, but also about the trade revolution. The most important is the digital revolution as the third industrial revolution (Bendel, 2017). There are four stages within the industrial revolution (Frick, 2017). The first industrial revolution was related to the invention of the steam engine, and the second was based on electricity. The focus of the third industrial revolution was further automation through digitization and new information technologies. The fourth industrial revolution (Industry 4.0) relates to individualization, i.e. the hybridization of customers and the integration of customers and business partners in business processes. The focus is on the growing digitization of earlier analogous techniques and the integration of cyber-physical systems. It is the future that begins. New technologies such as 3D printing increase the speed of new product development through faster prototype development (Scheer, 2017).

Based on the term Industry 4.0, which includes the framework of a goal-oriented transformation of industrial production, similar considerations have become relevant for agriculture (Krombholz, 2018). It is important to note here that for the Agriculture 4.0 phase, further digitization and robotization of agriculture will be relevant, like the Industry 4.0 phase.

When it comes to the retail revolution, which is on the horizon, the term Retail 4.0 is used. The study "Revolution Retail 4.0" provides a graphical representation of all four retail revolutions in Europe (Sehl, 2016). The period of the first retail revolution lasted 78 years (from 1885 to 1963). Then began selling in stores (its predecessor was trade fairs and traveling, mobile retail sale). The focus of innovation were resources, and digitization had not yet been used. Retail 2.0. lasted from 1963 to 1995. Introduced technologies have made it possible to cope with the complexity of costs and reduce them. The focus was on processes. It was the time when digitalization began (Digitalization 1.0.). At that time, product and assortment data could be monitored electronically. The time of the third retail revolution lasted from 1995 to

2016. It refers to the virtualization of the store and the purchasing process. The focus is on connecting retail to its environment through contemporary information technology (Digitalization 2.0). The fourth retail revolution (2016 and beyond) means the further development of digitalization (Digitalization 3.0) and the exploitation of information on customer needs and behaviour. The focus is on value chains and business models. It was estimated in that study that only those who would accept the changes would survive and that 25% of European trading companies would fail as victims to a new "purification" of the market (Ptock, 2016).

The change in the investment paradigm for certain retail formats is essential for the retail revolution. According to research in the Federal Republic of Germany (Online-Handel - Mögliche räumliche Auswirkungen auf Innenstädte, Stadtteil und Ortszentren, 2017), it was important to replace investments in personnel with the investments in space in the period from 1970 to 2010. From 2000 onwards, investments in space should be replaced by investments in the information.

Changes within Retail 4.0. can have four points of view (Rehme, 2018):

- as changes in the profession itself;
- as changes in the construction of stores;
- as changes in the leisure industry;
- as changes in logistics.

Changes in the profession are in a new approach to the creation of the offer. Products are not presented in mass, but positioned to facilitate consumer activity, because it is no longer based on what is in the product range, but what the consumer owns. Thus, the retailer has the task of activating the consumer in this procurement-production-purchase process. CRM (Customer Relationship Management) now includes the overall consumer behaviour in the context of his/her life, so that the focus is on the person (not just the customer).

In the construction of stores, consumer activity must be stimulated with a lower number of products. Retail space becomes an experience space, where it is important to connect physical space in the store (interior) with people and the digital experience space.

Everything is also linked to the leisure industry, which will function in a new way, as it will connect individual offers. Also, some retail formats and amusement parks will not perform on their own, which will alter certain city amenities.

Under the terms of Retail 4.0, major changes will occur in logistics as special delivery companies and autonomous driving will develop.

Logistics 4.0 is evolving with all these changes. Digitalization is also essential in these processes (Kille & Meißner, Hrsg., 2016). Requirements through Industry 4.0. and e-commerce have accelerated the selection processes in logistics and its revolution in the Logistics 4.0 phase. However, the digitalization process has evolved faster in logistics than in other economic sectors. In the definition of Logistics 4.0, its broader and narrower senses are stated (Oeser, 2018). Logistics 4.0. (broadly) describes the impact of Industry 4.0 on logistics, its joint (with industry) design and support for its coordinating role that crosses the boundaries of business functions and company. In the narrow sense, Logistics 4.0 is the networking and linking of products, facilities, partners (suppliers, manufacturers, wholesalers, retailers and logistics service providers) and customers through information and communication technology

(ICT) with decentralized decision-making structures to increase efficiency (e.g. through transparency, automation and process acceleration, error reduction and connectivity) and effectiveness (e.g. through flexibility and individualized services, processes and products).

It should be emphasized that the development of logistics has always been linked to the development of production. It has been established (Skaret, 2015) that Logistics 1.0. was current in the 18th century, related to mechanization. Logistics 2.0. was developed in the 19th century and related to electrification. Logistics 3.0. existed in the 20th century when automation was essential. Logistics 4.0. is developing in the 21st century, related to the development of CPS (cyber-physical systems). Finally, it should be noted that the following three trends are important in retail logistics (Gärtner, 2019): concentration, IT integration and automation.

4. TRADE, RETAIL AND RETAIL LOGISTICS IN THE REPUBLIC OF CROATIA

The importance of retail logistics firstly stems from the importance and development of trade itself and especially retail in the national economy.

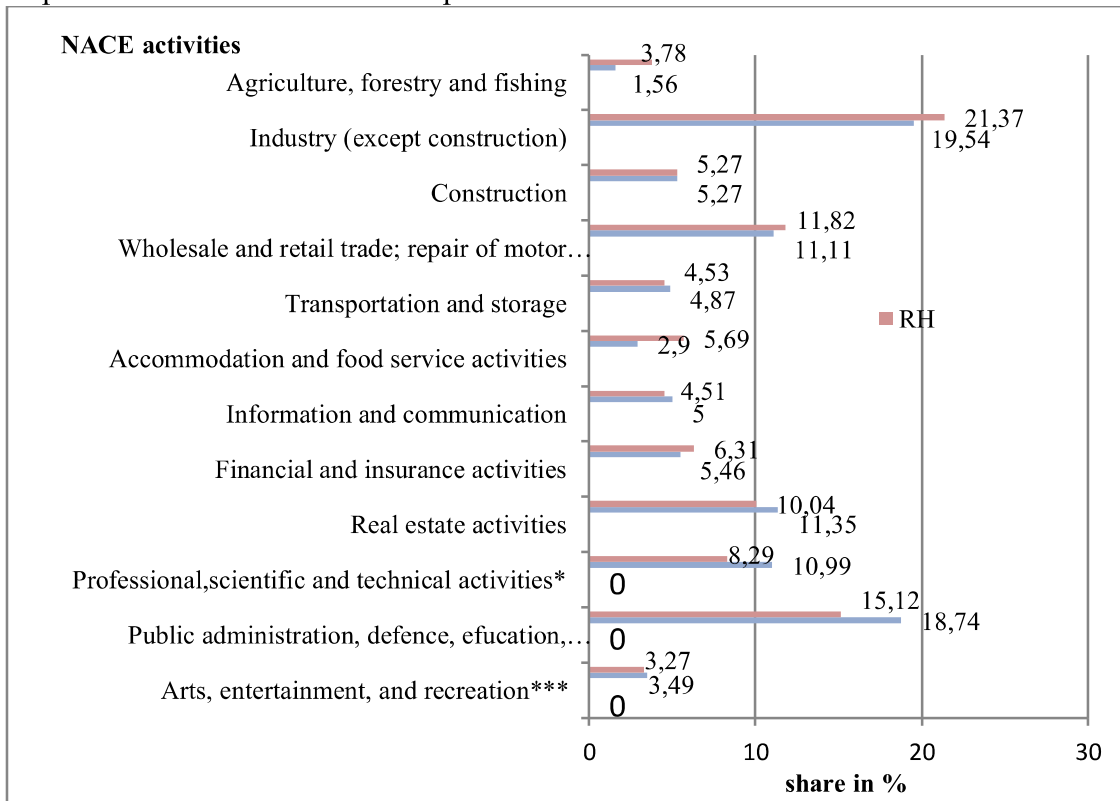
4.1. The importance of trade and retail

The importance of trade in the economy of the Republic of Croatia will be examined by shares in the gross value added of all activities.

Graph 1 shows the shares of all individual activities (in %) in value creation (in gross value added) in Croatia and throughout the European Union (EU-28) in 2016. It is evident that in 2016, the share of gross value added of trade in the gross value added of all activities was 11.82% in the Republic of Croatia and 11.11% in the European Union. The share of gross value added of transport and storage (as logistics activities) was 4.53% in the Republic of Croatia and 4.87% in the European Union.

Graph 2 shows the shares of total distributive trade (G) and retail trade except of motor vehicles and motorcycles (G-47) in generating gross value added of all activities in selected European countries in 2016. It can be concluded that overall trade, and in particular retail in the Republic of Croatia are more important than in the more developed countries selected (Austria, Germany, France, United Kingdom, Italy). According to the source for this graph, the share of retail trade activities except retail trade of motor vehicles and motorcycles (G-47) in gross value added of all activities in the European Union (EU-28) in 2016 was 4.44%, while it was 5.21 % in the Republic of Croatia. Such importance of trade and retail in the Republic of Croatia and in other transition countries mostly stems from the relatively higher consumption, expressed in retail turnover (partly tourism spending) in relation to the GDP.

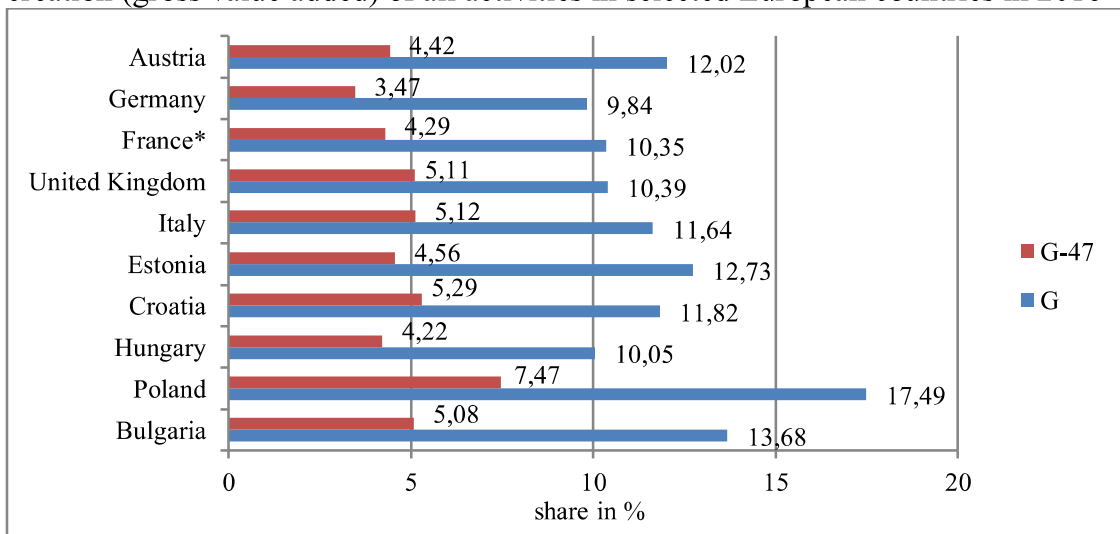
Graph 1. Shares (in %) of value creation (gross value added) by activities in the Republic of Croatia and the European Union in 2016



Annotation: *Professional, scientific and technical activities; administrative and support service activities; **Public administration, defence, education, human health and social work activities. *** Arts, entertainment and recreation; other service activities; activities of the household and extraterritorial organizations and bodies.

Source: National accounts aggregates by industry up to NACE A*64, Eurostat 2019

Graph 2. Shares (in %) of distributive trade (G) and retail trade (G-47) in value creation (gross value added) of all activities in selected European countries in 2016

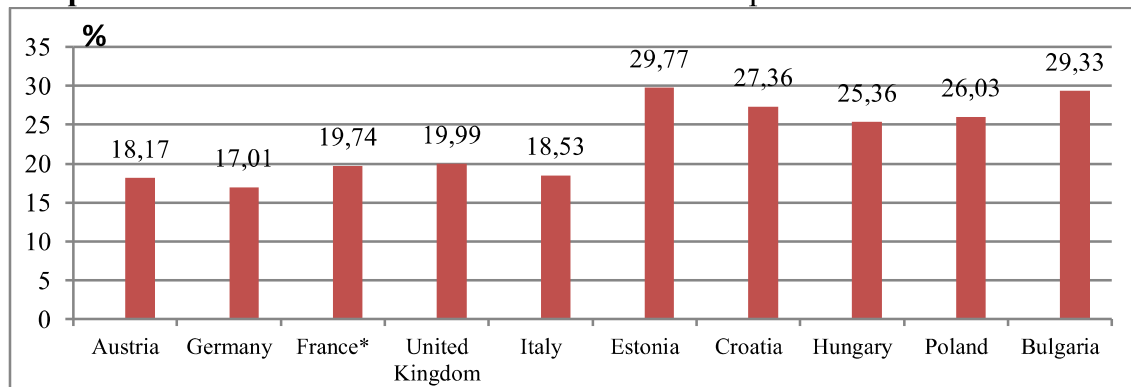


Annotation: * provisional

Source: National accounts aggregates by industry (up to NACE A*64), Eurostat, 2019

The ratio between retail turnover and gross domestic product (GDP) in the Republic of Croatia and selected European countries in 2016 is shown in graph 3. Due to relatively higher consumption relative to the GDP, transition countries (especially the Republic of Croatia) have higher shares of retail turnover in GDP from economically and commercially developed European countries

Graph 3. Retail turnover share in GDP in selected European Countries 2016



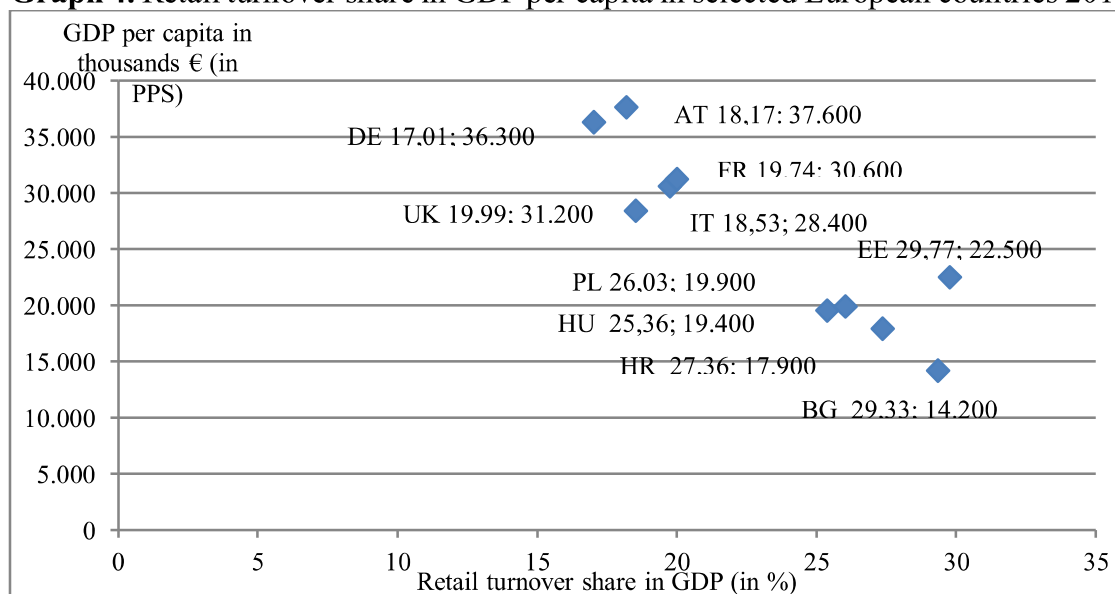
Annotation: * provisional

Source: (a) GDP and main components (output, expenditure and income), Eurostat, 2019.

(b) Annual detailed enterprise statistics for trade (NACE Rev2G), Eurostat, 2019.

Graph 4 shows retail turnover in % of GDP given the level of economic development (GDP per capita in Purchasing Power Standards) in 2016 in selected European countries. The observed transition countries (Estonia, the Republic of Croatia, Hungary, Poland and Bulgaria) have relatively lower GDP per capita, but also higher shares of retail turnover in GDP than other observed developed countries.

Graph 4. Retail turnover share in GDP per capita in selected European countries 2016



Annotations: PPS – Purchases Power Standard

Sources: (a) Main GDP aggregates per capita, Eurostat, 2019.

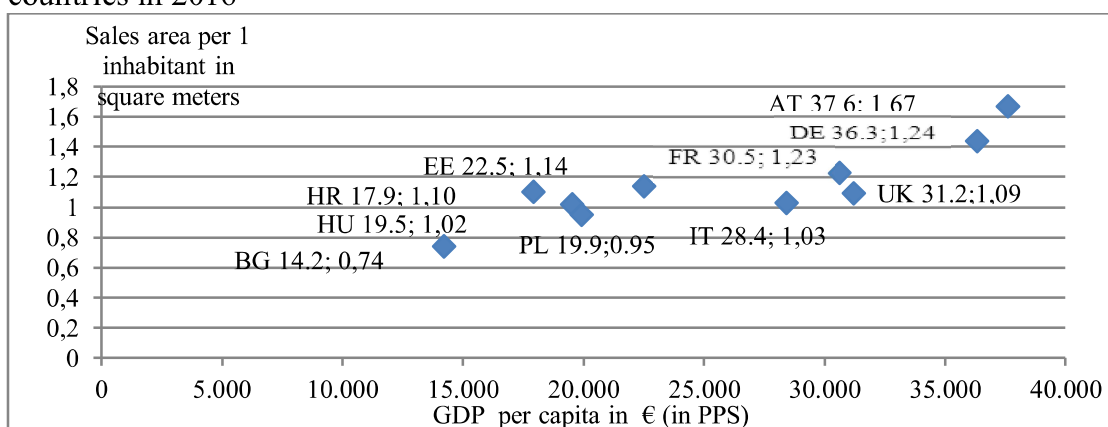
(b) GDP and main components (output, expenditure and income), Eurostat, 2019.

(c) Annual detailed enterprise statistics for trade (NACE Rev2G), Eurostat, 2019.

4.2. Retail development

Quantitative development of retail in the Republic of Croatia has been evaluated based on sales area per 1 inhabitant indicator. Graphs 5 and 6 show sales area per 1 inhabitant and GDP per capita in selected European countries in 2016 and 2017. Countries with higher GDP per capita also have a larger sales area. However, the Republic of Croatia has the most unfavourable ratio of all observed countries between GDP per capita and sales area per 1 inhabitant in 2016 and 2017 – the lowest GDP per unit sales area. This indicates a certain mismatch in the development of retail capacities (in quantitative terms) and the level of the overall economic development in the Republic of Croatia.

Graph 5. Sales area per 1 inhabitant and GDP per capita in selected European countries in 2016

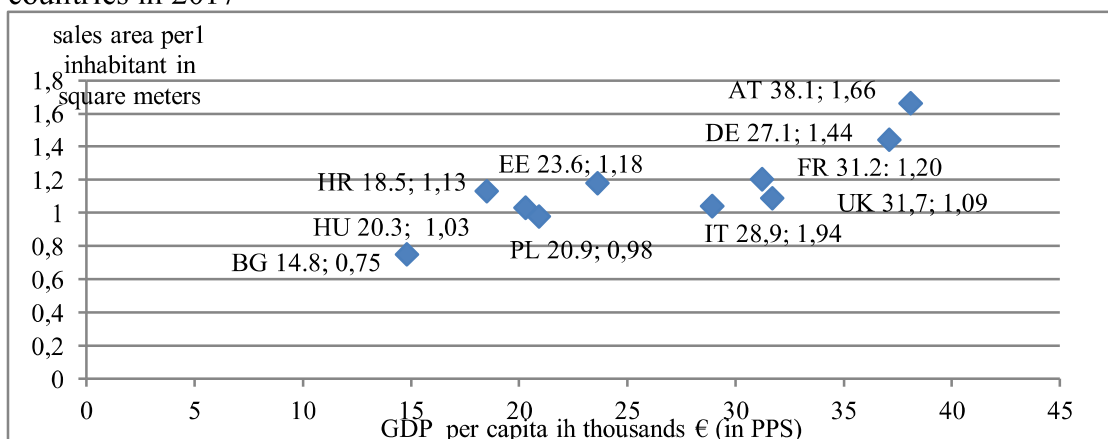


Annotation: PPS – Purchases Power Standard

Source: (a) European Retail in 2017, GfK study on key retail indicators 2016 review and 2017 forecast (2017), Eurostat, 2019.

(b) Main GDP aggregates per capita, Eurostat, 2019.

Graph 6. Sales area per 1 inhabitant and GDP per capita in selected European countries in 2017



Annotation: PPS = Purchases Power Standard

Source: (a) European Retail in 2018, GfK study on key retail indicators 2017 review and 2018 forecast (2018)

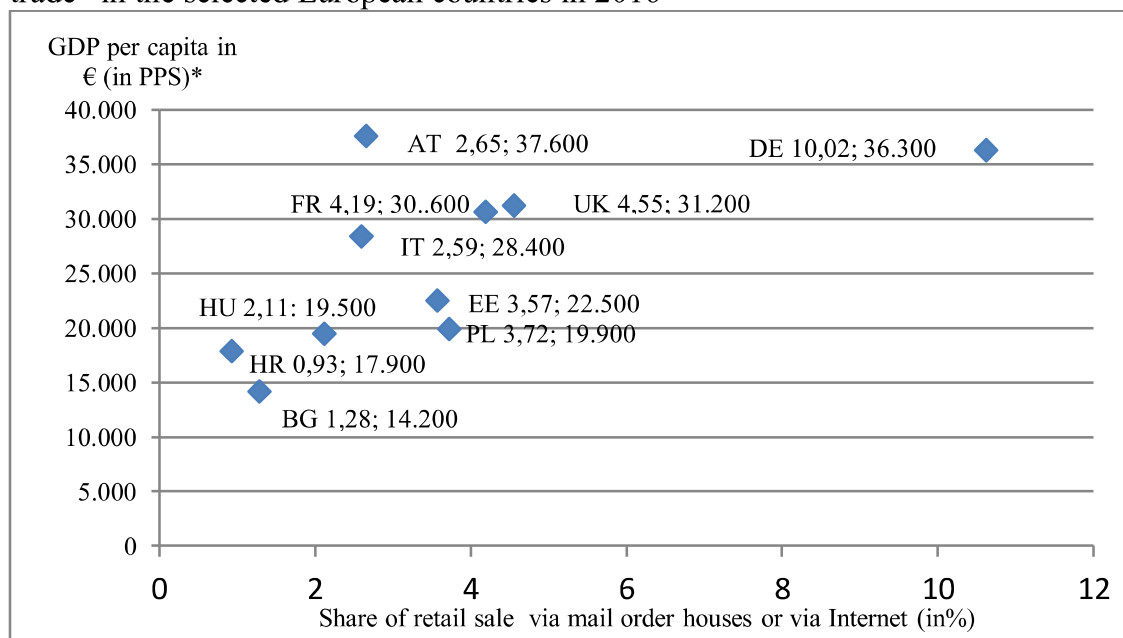
(b) Main GDP aggregates per capita, Eurostat, 2019.

In contemporary development processes, sales areas are shrinking in some countries (European Retail in 2019). The reasons for that include the spread of e-retail, earlier saturation of sales areas, population migration and others (Die Verkaufsflächendichte: Nivelierungstendenzen in Europa, 2018). The process of sales area downsizing is particularly evident in contemporary cities, given the many interdependencies in the development of retail and the city (Kreutz, 2016). There are numerous analyses of retail development in terms of urban locations and architecture, especially known for German cities (e.g. Sperle, 2012). However, the problems of managing such free spaces, i.e. empty sites, also arose in the Republic of Croatia (Segetlija, 2017).

According to the latest sources (European Retail in 2019, GfK), the sales area per 1 inhabitant in the Republic of Croatia has continued to grow and in 2019 there were 1.16 m² per 1 inhabitant (it fell to 1.62 m² in Austria). The main reason for the increase in the Republic of Croatia may be the decrease in the number of inhabitants (migration of population).

Since there are interdependencies between the level of retail development and the level of overall economic development of a country, it is necessary to consider retail development in qualitative terms as well, in relation to contemporary retail formats in the retail structure. Essentials are shares of retail via mail and via the Internet. The share of retail via mail and via the Internet in total retail sales other than retail trade in motor vehicles and motorcycles (G-47) in selected European countries in 2016 is shown in Graph 7. One can see a relatively small share of retail via mail and Internet (G-47) in the Republic of Croatia (lowest among observed countries).

Graph 7. Share of retail sale via mail order houses or via the Internet in the retail trade* in the selected European countries in 2016



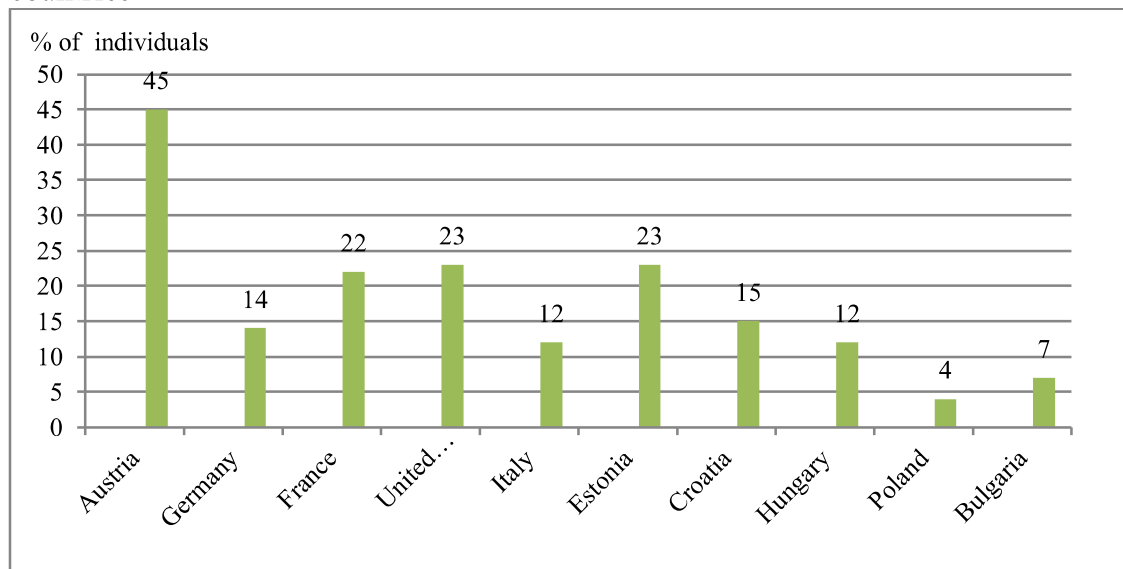
Annotation: *G-47 – retail trade except of motor and motorcycles; PPS=Purchasing Power Standard.

Source. (a) Annual detailed enterprise statistics for trade (NACE Rev. 2G), Eurostat, 2019.

(b) Main GDP aggregates per capita, Eurostat, 2019.

However, if the online retail of foreign suppliers is also considered, this share in the Republic of Croatia could be much higher (see: Onlinehandel: Das Europe der zwei Geschwindigkeiten, April 24, 2017). Therefore, graph 8 shows the percentages of consumers buying online from providers from other EU countries (who purchased or ordered in the last 12 months) in 2016.

Graph 8. Individuals* using the Internet ordering goods or services from other EU countries



Annotation: * % of individuals aged 16 to 74

Source: Individuals using the Internet for ordering goods or services from other EU countries, Eurostat, 2019.

Graph 8 shows that % of people who bought online from other EU countries in 2016 were 15 % in the Republic of Croatia, while 12 % in Hungary, 4 % in Poland and 7 % in Bulgaria.

4.3. The importance of retail logistics

Online retail development in a particular country mostly depends on the following factors: purchasing power, expertise and quality of supply, the degree of concentration of retail and, in particular, the quality of logistics (especially retail logistics).

Particularly important is the degree of concentration, as large online retailers continue to expand internationally. Thus, e.g., Amazon.com Inc. holds 50 % of the online trade market in Germany (Gärtner, 2019). The same retailer had an average revenue growth rate of 18 % between 2012 and 2017 (Global Powers of Retailing 2019).

Logistics quality is in the function of the economic development and competitiveness of each country. It can be expressed by the Logistic Performance Index (LPI). Logistics services are known to be the main support of international trade. Trade logistics is also important in this context, as large retail companies

operate internationally. Of course, the quality of logistics in a particular country is also important for its overall competitiveness, for its Global Competitiveness Index.

The importance of the LPI arises from the fact that in today's era of high automation and robotization of manufacturing processes, when productivity growth potentials in the production sphere have been used to their maximum, the area of competitive advantage creation should be sought in the sphere of space and time transformation, in logistics (Zekić et al., 2017). This index is also important in assessing the development of trade logistics in a particular country.

Table 1 shows the LPI for selected European countries in 2007 and 2018. The Republic of Croatia has significantly improved its position in 2018 compared to 2007, although the quality of logistics services is still not satisfactory. Only Bulgaria has a lower index than the Republic of Croatia. This has an impact on both the development of contemporary retail formats and the level of overall economic development.

Table 1. Logistic Performance Index (LPI) in selected European countries 2018 and 2007

Country	2018		2007	
	LPI Score	LPI Rank	LPI Score	LPI Rank
Germany	4,20	1.	4,10	3.
Austria	4,03	4.	4,05	5.
United Kingdom	3,99	9.	3,99	9.
France	3,84	16	3,76	18.
Italy	3,74	19.	3,58	22.
Poland	3,54	28.	3,04	40.
Hungary	3,41	31.	3,15	35.
Estonia	3,31	36.	2,91	51.
Croatia	3,10	49.	2,71	63.
Bulgaria	3,03	52.	2,87	55.

Source: Global Rankings 2018, The World Bank, Washington, 2019.

5. CONCLUSION

The importance of trade, especially retail, and trade logistics in the economy was emphasized in this paper. The role of trade logistics should be highlighted in the functioning of retail formats. In today's context, supply chain management has evolved with the development of logistics.

In contemporary business models, which are developed by individual retail formats, business processes and thus the overall value chains are being improved. This makes trade logistics particularly important in new models of distribution channels.

As a complex logistics system, in many cases a multi-level logistics system, contemporary trade logistics is a concept of supply chain management. It is important to emphasize that certain types of retail formats also differ in what logistical tasks they need to perform.

For assessing the importance of trade logistics, the starting point is the importance of trade itself and, especially the importance of retail in the national economy.

Within the contemporary development processes in the economy, the industrial, agrarian and digital revolution, as well as the trade and logistics revolution, are essential. However, the digital revolution as the third industrial revolution is mostly highlighted. The fourth industrial revolution (Industry 4.0) refers to individualization, i.e. the hybridization of customers and the integration of customers and business partners in business processes. The fourth retail revolution (Retail 4.0) means the further development of digitalization (Digitization 3.0) and the exploitation of information on customer needs and behaviour in the function of creating value chains and new business models. Under these conditions, logistics will be developed using the services of specialized delivery companies and autonomous deliveries by other routes. Within the Logistics 4.0. it is important to network and connect products, facilities, partners (suppliers, wholesalers, retailers and logistics service providers) and customers based on information and communication technology (ICT) with decentralized decision-making structures.

The importance of trade and retail in the Republic of Croatia and in selected European countries in this paper have been evaluated according to their shares in the creation of gross value added (2016). Total trade, and retail as well, in the Republic of Croatia and in other transition countries are more important than in more developed countries. Therefore, in transition countries where GDP per capita is lower, the share of retail turnover in GDP is higher.

Quantitative retail development in the Republic of Croatia has been analysed based on sales area per 1 inhabitant (in 2016 and 2017). Although in quantitative terms retail in the Republic of Croatia is more developed than in Hungary, Poland and Bulgaria, it generates less GDP per unit of sales area, which indicates a mismatch in the development of retail capacities (in quantitative terms) with the level of general economic development.

In the Republic of Croatia (2016), there is a relatively small share (0.93%) of retail sales via mail or Internet (G-47) by domestic suppliers, the smallest among the observed countries. The share increases if the online retail of foreign suppliers is also considered. This means that contemporary retail formats are relatively underdeveloped and are not drivers of economic development. Specifically, retailers running their supply chains could also be drivers of new production.

Finally, it can be concluded that the quality of logistics services, i.e. trade logistics in Croatia is not satisfactory. Only Bulgaria has a lower LPI than the Republic of Croatia in 2018. This is also reflected in the overall processes of economic development through the international integration and development of contemporary retail formats.

6. REFERENCES

Ahlert, D. & Kenning P. (2007). *Handelsmarketing*, Springer Verlag, Berlin – Heidelberg.

- Alfier, D. (1967). *Uvod u ekonomiku unutrašnje trgovine*, Informator, Zagreb.
- Barth, K., Hartmann, M. & Schröder, H. (2002). *Betriebswirtschaftslehre des Handels*, Fünfte überarbeitete und erweiterte Auflage, Betriebswirtschaftlicher Verlag Dr. Th. Gabler, Wiesbaden.
- Beckermann, T. & Rau, R. (1977). *Der Einzelhandel 1959-1985.*, Dencker&Humblot, Berlin.
- Bendel, O. (2017). *Digitalisierung*. In: Gabler Wirtschaftslexikon, Springer Fachmedien Wiesbaden GmbH [available at: <https://wirtschaftslexikon.gabler.de/definition/digitalisierung-54195>], access: March 2019].
- Bosilj Vukšić, V. & Kovačić, A. (2004). *Upravljanje poslovnim procesima*, Sinergija, Zagreb.
- Eitner, C. (2008). *Die Reaktionsfähigkeit des deutschen Einzelhandels auf den demographischen Wandel .Eine qualitative und quantitative Analyse unter zielgruppen- und netzwerkspezifischen Gesichtspunkten*, Dissertation, Ruhr-Universität Bochum, Fakultät für Sozialwissenschaft [available at: <http://www-brs.uni-bochum.de/netahtml/HSS/Diss/EitnerCarolin/diss.pdf>, access: (March 15, 2019)].
- Frick, T.W. (2017). Von Industrie 1.0. bis Industrie 4.0., *Industrie - wegweiser*, Fachportal. Oetzberg, Deutschland [available at: <https://industrie-wegweiser.de/von-industrie-1-0-bis-4-0-industrie-im-wandel-der-zeit/>], access: November 12, 2018].
- Gärtner, S. (2019). *Integrieren, Digitalisieren, Automatisieren*, Vorlesung, Das Logistik Plan Forum, Logistik&Plan GmbH, Dresden [available at: <https://www.logistikplan.de/medien/dateien/vortrag-logistikplan-2019-01-31.pdf>], access May 11, 2019].
- Gittenberger, E., Lienbacher, E. & Ziniel, W.: Handel 2020 (2013). *Aktuelle Entwicklungen in ausgewählten Bereichen des Handels in Österreich*, AWS Arbeitsgemeinschaft Wirtschaft und Schule, Institut für Bildungsforschung, Wien, Aktuelle Unterlage, September, 2013 [available at: <https://bach.wu.ac.at/d/research/results/65712/>], access: March 24, 2019].
- Groß, W., Seeck, S., Bötel, M. & Herrmannsdörfer, M. (2014). Logistik im deutschen Groß- und –Einzelhandel. Herausforderungen und Trends, 31. *Deutscher Logistik Kongress*, 22.- 24. Oktober, 2014, pp. 330 – 372 [available at: www.bvl.de/misc/filePush.php?id=27318...E1, access: April 29, 2016].
- Heinemann, G. (2008). *Multi-Channel-Handel. Erfolgsfaktoren und Best-Practices*, Zweite überarbeitete und erweiterte Auflage, Gabler GWV Fachverlage GmbH, Wiesbaden, 2008.
- Hofer, F.G. (2009). *Management der Filiallogistik im Lebensmitteleinzelhandel. Gestaltungsempfehlungen zur Vermeidung von Out-of-Stocks*, Disertacija, der Universität St. Gallen, Hochschule für Wirtschafts-, Rechts- und Sozialwissenschaften (HSG), Gabler Verlag, Wiesbaden, 2009. [available at:

[https://www1.unisg.ch/www/edis.nsf/SysLkpByIdentifier/3547/\\$FILE/dis3547.pdf](https://www1.unisg.ch/www/edis.nsf/SysLkpByIdentifier/3547/$FILE/dis3547.pdf)
access: April 29, 2019].

Kille, Ch. & Meißner, M. (Hrsg.). Logistik trifft Digitalisierung, DVV Media Group GmbH, Hamburg, 2016, S. 90 [available at: http://www.logistikweisen.de/wAssets/docs/Logistik_trifft_Digitalisierung_2016_LR.pdf , access: April 29, 2019].

Knežević, B. (2011). *Usporedba distributivne trgovine u Hrvatskoj i članicama Europske Unije*, u: Segetlija, Z. et al.: *Ekonomika trgovine* (2011), Novi informator, Zagreb.

Kotler, Ph. & Keller, K.L. (2006). *Marketing Management*. Twelfth Ed., Prentice.Hall, Translated in Croatian, MATE, Zagreb, 2008.

Kotzab, H. (2012). Handelslogistik. In: P. Klaus, W. Krieger, & M. Krupp (Hrsg.): *Gabler Lexikon Logistik: Management logistischer Netzwerke und Flüsse*, Fünfte Auflage, pp. 212-217 [available at: https://books.google.hr/books?id=b1O3tvUc2kwC&pg=PA200&lpg=PA200&dq=Handelslogistik,+Kotzab&source=bl&ots=pIa4CKjtFU&sig=ACfU3U00_Ti-8dS8J5Jm781-FGD9ShPTAA&hl=hr&sa=X&ved=2ahUKEwi5u_KE0aziAhXmwYsKHZkuD3I4ChDoATAPegQIBRAB#v=onepage&q=Handelslogistik%2C%20Kotzab&f=false, access: April 29, 2019].

Krampe, H. & Lucke H.J. (2006). *Einführung in die Logistik*, in: Krampe, H.; Lucke H.J.: *Grundlagen der Logistik, Theorie und Praxis logistischer Systeme*, Dritte erweiterte Auflage, Huss Verlag GmbH, München, 2006., str. 17-31.

Kreutz, S. (2016). *Handel in der Zukunftsstadt*, Hafen City Universität Hamburg HCU, Hamburg, [available at: <http://www.gutegeschäftemachen.de> , access: January 2, 2017].

Krombholz, K. (2018). *Gedanken zur Vorgeschichte von Landwirtschaft 4.0*. In: Frerichs, L. (Hrsg.): *Jahrbuch Agrartechnik 2018*. Braunschweig: Institut für mobile Maschinen und Nutzfahrzeuge, 2019. S. 1-17. [available at: https://publikationsserver.tu-braunschweig.de/servlets/MCRFileNodeServlet/dbbs_derivate_00045217/jahrbuchagrartechnik2018_geschichtelandwirtschaft40.pdf, access: April 26, 2019].

Kuhn, H., Holzapfel, A. & Ostermeier, M.: *Handelslogistik*, In: *Handbuch Produktion- und Logistikmanagement in Wirtschaftsnetzwerken*, pp. 717-736 [available at: https://www.researchgate.net/publication/325973894_Handelslogistik access: April 20, 2019].

Lerchenmüller, M. (1992). *Handelsbetriebslehre*, Friedrich Kiel Verlag GmbH, Ludwigshafen (Rhein).

Lerchenmüller, M. (2003). *Handelsbetriebslehre*, Vierte überarbeitete und aktualisierte Auflage, Friedrich Kiel Verlag GmbH, Ludwigshafen (Rhein).

Leukert, B. & Gläß, R. (2017). *Herausforderungen und Chancen für die Digitalisierung von Handelsunternehmen*. In: Gläß, R.; Leukert, B. (Hrsg.) (2017): *Die Digitalisierung des Handels – Strategien, Technologien, Transformation*, Springer Gabler, Springer Verlag, Berlin-Heidelberg, 2017, pp. 193–210..

Levy, M.L. & Weitz, B. A. (2012): *Retailing Management*, Eight Edition, McGraw-Hill, Irwin, New York.

Oehme, W. (1983). *Handels-Marketing*, Verlag Franz Wahlen.

Oeser, G. (2018). *Logistik 4.0.*, Gabler Wirtschaftslexikon, Springer Gabler, Springer Fachmedien Wiesbaden GmbH [available at: <https://wirtschaftslexikon.gabler.de/definition/logistik-40-54203>, access: (April 10, 2019)].

Ptock, J. (2016.). Retail 4.0: 25 Prozent der europäischen Unternehmen stehen vor dem Aus, *Onlinehändler News*, 22.09.2016. [available at: <https://www.onlinehaendler-news.de/online-handel/haendler/27532-retail-4-25-prozent-europaeischen-unternehmen-stehen-vor-aus>, access: November 10, 2018].

Rehme, F. (2018). Trendwatch #4, Retail Revolution. Zukunft des Einkaufens 30.Januar.2018. [available at: <https://zukunfdeseonkaufens.de/trendwatch4-revolution>, access: April, 10, 2019].

Scheer, A.W. (2017). *The Big Change. Auswirkungen der neuen Technologien von Industrie 4.0. Neue Wertschöpfungsketten für den Handel.*In: Gläß, R.; Leukert, B. (Hrsg.) (2017): *Die Digitalisierung des Handels – Strategien, Technologien, Transformation*, Springer Gabler, Springer Verlag, Berlin-Heidelberg, 2017, pp. 51 – 57.

Segetlija, Z. (2012). *Maloprodaja u Reoublici Hrvatskoj*, Treće izmijenjeno i dopunjeno izdanje, Ekonomski fakultet u Osijeku, Osijek.

Segetlija, Z., Knego, N., Knežević, B. & Dunković, D.: (2011). *Ekonomika trgovine*, Novi informator, Zagreb.

Segetlija, Z.. (2017). Prodajne površine – razvoj i zasićenje, *Suvremena trgovina*, Vol. 42, No.2, pp.40 – 47.

Sehl, R. (2016). *Revolution Retail 4.0. Fünf Erfolgsfaktoren im digitalen Epochenumbruch*, Bearing Point, Frankfurt, und IIHD, Mainz, 2016. [available at: https://www.bearingpoint.com/files/BEDE16_1069_RPK_DE_Retail_4_0_final_web-2.pdf?hash, access: April 26, 2019].

Skaret, Ch. (2015). Logistiksystemplanung im Wandel, Zweiter Fachkongress *Digitale Logistik*, Wien, 26.November 2015, Econsult Wien [available at: <http://www.econsult.at/images/Artikel/2-Fachkongress-Digitale-Logistik-Vortrag-Skaret-1.pdf> access: April 26, 2019].

Sperle, T. (2012). Was kommt nach dem Handel. Umnutzung von Einzelhandelsflächen und deren Beitrag zur Stadtentwicklung, Städtebau-Institut der Universität Stuttgart. [available at: http://elib.uni-stuttgart.de/opus/volltexte/2013/8025/pdf/121219_TSk.pdf, access: January 2, 2017].

Toporowski, W. (1996). *Logistik im Handel*, Springer Verlag, Berlin – Heidelberg.
Xxx (2016). Revolution Retail 4.0. – Der Epochenumbruch im Handel, *Ecommerce Magazin* [available at: <https://www.e-commerce-magazin.de/revolution-retail-40-der-epochenumbruch-im-handel>, access: April, 26, 2019].

Xxx (2016). *Verkaufsflächendichte in Europa stagniert*, RegioData Research GmbH, Wien, March 4, 2016 [available at: <https://www.regiodata.eu/de/news/965-verkaufsflaechendichte-in-europa-stagniert>, access: April 26, 2019].

Xxx (2017). *European Retail in 2017*, GfK study in key retail indicators: 2016 review and 2017 forecast, GfK GeoMarketing GmbH, Bruchsal (Germany), [available at: https://www.eurocommerce.eu/media/141240/GfK%20-%20European_Retail_Study_2017.pdf, access: March 15, 2019].

Xxx (2017). *Online-Handel – Mögliche räumliche Auswirkungen auf Innenstädte, Stadtteil- und Ortszentren*, Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) im Bundesamt für Bauwesen und Raumordnung (BBR) (Hrsg.), BBSR-Online-Publikation 08/2017, Bonn, Mai 2017 [available at: <https://d-nb.info/1135734925/34>, access: March 20, 2019].

Xxx (2017). *Onlinehandel: Das Europa der zwei Geschwindigkeiten*, RegioData Research GmbH, Wien, April 24, 2017 [available at: <https://www.regiodata.eu/de/news/1049-onlinehandel-das-europa-der-zwei-geschwindigkeiten>, access: April, 20, 2019].

Xxx (2018). *Die Verkaufsflächendichte: Nivlierungstendenzen in Europa*, RegioData Research GmbH, Wien, Januar 15, 2018 [available at: <https://www.regiodata.eu/de/news/1083-die-verkaufsflaechendichte-nivellierungstendenzen-in-europa>, access: May 31, 2019].

Xxx (2018). *European Retail in 2018*, GfK study in key retail indicators: 2017 review and 2018 forecast. GfK GeoMarketing GmbH, Bruchsal (Germany) [available at: http://www.gfk-geomarketing.de/fileadmin/gfkgeomarketing/en/EN_European_Retail_Study_2018.pdf, access: March 15, 2019].

Xxx (2018). *Weltbank Logistik Performance Index 2018: Österreich mit Platz 4 Weltspitze*, Zentralverband Spedition&Logistik, Wien, July 25, 2018 [available at: https://www.ots.at/presseaussendung/OTS_20180725_OTS0070/weltbank-logistik-performance-index-2018-oesterreich-mit-platz-4-weltspitze, access May 9, 2019].

Xxx (2019). *Annual detailed enterprise statistics for trade (NACE Rev2G)*, Eurostat [available at: www.eurostat.eu, access June 6, 2019].

Xxx (2019). *European Retail in 2019*, GfK study in key retail indicators: 2018 review and 2019 forecast. GfK GeoMarketing GmbH, Bruchsal (Germany). [available at: http://www.gfk-geomarketing.com/fileadmin/gfkgeomarketing/en/EN_European_Retail_Study_2019.pdf, access: June 10, 2019].

Xxx (2019). *GDP and main components (output, expenditure and income)*, Eurostat, 2019 [available at: www.eurostat.eu, access June 6, 2019].

Xxx (2019). *Global Powers of Retailing*, Deloitte Touche Tohmatsu Limited, [available at: <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Consumer-Business/cons-global-powers-retailing-2019.pdf>, access May 31, 2019].

Xxx (2019). *Global Rankings 2018*, The Worldbank, Washington. [available at: <https://lpi.worldbank.org/international/global/2018>, (access: May 10, 2019)].

Xxx (2019). *Individuals using the Internet for ordering goods or services from other EU countries*, Eurostat [available at: <https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tin00003&plugin=1>, acces: June 10, 2019].

Xxx (2019). *Main GDP aggregates per capita*, Eurostat [available at: www.eurostat.eu, access June 6, 2019].

Xxx (2019). *National accounts aggregates by industry up to NACE A*64*, Eurostat [available at: www.eurostat.eu, access June 6, 2019].

Zekić, Z., Samaržija, L. & Pupavac, J. (2017). *Analiza konkurentnosti Republike Hrvatske u europskom i globalnom logističkom prostoru*, Privredna kretanja i ekonomska politika, Vol.26 (2017), No. 1, pp. 85 – 103 [available at: <https://hrcak.srce.hr/191340>, access March 20, 2019].