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FUTURE DEVELOPMENT TRENDS IN THE POSTAL MARKET: AN OVERVIEW

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Abstract: The needs of users of postal services are becoming more and more demanding for postal operators day by day. The environment in which the postal sector develops is constantly changing. Achieving quality standards, keeping pace with technological solutions, and developing new services and business models are real challenges for postal service operators. Within this paper, an overview of the current state of the postal services market, both at the global level and in the Republic of Serbia, is given. Also, following the conclusions of the Report of the Universal Postal Union on the development of postal traffic for the year 2022, a presentation of possible directions for the development of postal services through two advanced services is given: the sharing economy and sustainable logistics.

Keywords: postal market, sharing economy, sustainable logistics.

1. Introduction

The postal services market can be defined as a complex supply and demand relationship with the possibility of providing services in domestic and international traffic through a large number of sales channels (Grgurović and Štrbac, 2006). Key participants in the postal services market are public and private postal operators. Postal services do not have a purpose in themselves, but are usually part of some other business or private need. These services are considered services of general economic interest. With the development of electronic commerce, postal traffic has become one of the key segments of the development of commerce, and therefore of the economy as a whole (Strategy, 2021). Postal services represent an activity that, in addition to its sustainable economic growth, can successfully support the further technical and technological development of the country (Strategy, 2021). In recent years, postal organizations have been increasingly striving to direct their operations according to market requirements, i.e. the needs of clients (Ralević et al., 2020). To observe and evaluate the basic elements including individuals, organizations and institutions, as well as factors (economic, sociological, technological, etc.) that influence the events on the market, it is necessary to perform a market analysis (Grgurović and Štrbac, 2006).

Within this paper, an overview of the current state of the postal services market, on a global level, and in the Republic of Serbia is given. Based on the conducted market analysis and the conclusions of the Report of the Universal Postal Union – UPU on the development of postal traffic for the year 2022, a presentation of possible directions for the development of postal services is given.

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2. Development of the Postal Services Market

Planning the development of postal services defines development scenarios, goals and activities that should be implemented in a certain period. When defining the goals, the starting point is some factors that have different effects on the postal services sector (Strategy, 2021). The European Regulators Group for Postal Services (ERGP) believes that providing information on the development of the postal market in ERGP member countries is of great importance for the development of the postal market. Timely information is also important for National Regulatory Authorities (NRAs) to adequately perform their duties following the Postal Services Directives (ERGP Report, 2020). The challenge is even higher for the countries that are in the process of market liberalization or those that liberalized the market recently (Jovanović *et al.*, 2021).

2.1. Development of the Postal Services at a Global Level

ERGP in its report for the period from 2015-2019 provides information on key indicators of the European postal market in ERGP Member countries based on information collected from NRAs. The report also identifies key indicators, trends and main drivers of the European postal market. As for prices in 2019, the average European price for a domestic priority letter of 20 grams increased by 6.5% compared to 2018 and by 42.3% compared to 2015. The European average price for international priority letters has followed a similar path. As for package prices compared to 2018, they had a slight increase, on average 2.3% in 2019. Research has shown that eastern countries have on average 49% cheaper prices for domestic parcels compared to the average (ERGP Report, 2020).

An increase in the number of active postal service providers in the period from 2018-2019 which is greater than or equal to 5% was recorded in six countries (Austria, Switzerland, Cyprus, Lithuania, Malta and Slovenia). Croatia, Ireland, Latvia, Luxembourg, Poland and Sweden are the countries where there was a decrease in the number of active postal service providers that is greater than or equal to 5% (ERGP Report, 2020). The postal services market has great potential. Fig. 1. shows the number of postal units worldwide, grouped by region and type of ownership for the year 2020 (Statista, 2022).

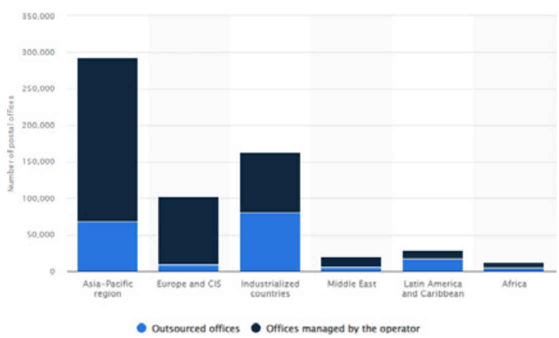

Fig. 1.
Number of Postal Units Worldwide, grouped by Region and Type of Ownership for 2020
Source: (Statista, 2022)

According to the data of the UPU, there are more than 5 million employees and about 660,000 postal units in the postal sector (UPU Report, 2022). Throughout 2020 and 2021, the global postal infrastructure played a key role in enabling governments to better respond to the challenges of the COVID-19 pandemic. This pandemic contributed to the development of new postal services (UPU Report, 2022). According to the latest UPU estimates, global revenue from parcels and logistics is for the first time greater than revenue from letter carrier services. The highest annual growth rate of package services in domestic traffic was reached in 2020 with an increase of 17.6% at the global level. This growth continued in 2021 with a growth of 13.6%, which is significantly above the annual growth trend of 7.5%, which was before the pandemic (UPU Report, 2022). If there is no additional deterioration of macroeconomic conditions, it is predicted that the volume of postal services in domestic traffic will reach high annual growth rates during 2022. In Fig. 2. the trend of the parcel and express services in domestic traffic at the global level is presented.

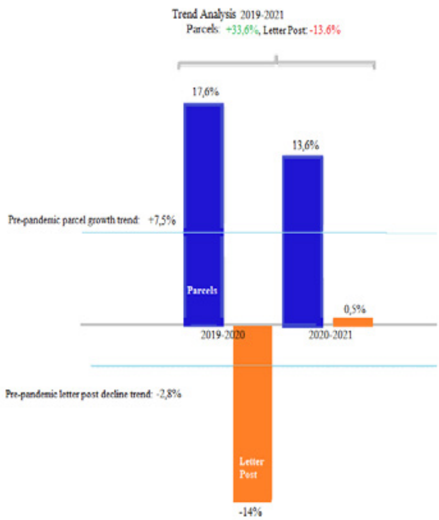

Fig. 2.
The Trend of Letter and Parcel Services in Domestic Traffic in the Period 2019-2022
Source: (UPU Report, 2022)

The letter market has suffered a significant decline, unlike the parcel market, which is growing rapidly due to the development of electronic commerce (Mateusz, 2021). The global volume of letter carrier services in domestic traffic recorded a decrease of 13.6% between 2019 and 2021 (UPU Report, 2022). However, the volume of letter services increased by 0.5% in the period from 2020 to 2021. The volume of parcel and letter services among operators in EU countries is shown in the period between 2019 and 2020 in Fig. 3.

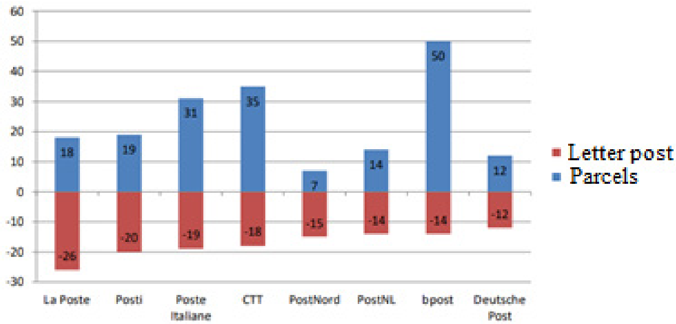

Fig. 3.
Change in the Volume of a Delivered Letter and Parcel Services in the EU (Percentage of change, First Half of 2020 compared to First Half of 2019)
Source: (Mateusz, 2021)

In Germany (Deutsche Post), the Netherlands (PostNL) and Finland (Posti), changes in the volume of parcel and letter services are mutually balanced. In contrast, in Belgium (Bpost), the parcel market grew by 50%, with an accompanying decline in letter services of 14%. In the example of the French Post Office (La Poste), the package market grew by 18%, but the letter market decreased by 26% (Mateusz, 2021).

Looking at revenues, they have grown by around 1.9% on average between 2015 and 2019. This increase is mainly due to the increase in revenue from package services. Revenues from package services in 2019 accounted for 55% of total revenues (ERGP Report, 2020). Table 1 shows Total Postal Revenue and the percentage change between 2018 and 2019 (ERGP Report, 2020).

Table 1
Total Postal Revenue and the Percentage Change between 2018 and 2019

	2015 (in millions)	2018 (in millions)	2019 (in millions)	Percentage change 2018-2019	Average Percentage change 2015-2019
Total Revenues	€65,566	€68,672	€70,472	2.6%	1.9%
Total Letter Mail	€33,615	€31,045	€30,248	-2.6%	-2.6%
Total Parcels	€31,287	€36,350	€38,811	+6.8%	+5.6%

Source: (ERGP Report, 2020)

2.2. The market of Postal Services in the Republic of Serbia

The postal sector represents a significant factor that affects the growth of the economy, employment and gross domestic product (GDP) in the Republic of Serbia (Strategy, 2021). Thus, during the year 2021, the postal activity generated an income of around 235.8 million euros. In the continuity of 5 years, the income from postal activity has been growing. In 2021, 4.8 million more services were provided than in 2020. In the postal industry in 2021, after a seven-year increase in the number of employees, a decrease of -1.16% was recorded. The share of income from postal activity in the GDP for 2021 is slightly higher compared to the previous year and amounts to over 0.44% (6,268,714 billion dinars) (RATEL, 2021). According to the data of the Regulatory Agency for Electronic Communications and Postal Services – RATEL from the year 2023, there are 53 active postal operators on the market of postal services in the Republic of Serbia. It should be borne in mind that the number of active operators changes from day to day, and this branch of traffic tends to become an even more significant element of the overall economic development of a country. The realized income from postal services is over 18% higher in 2021 compared to 2020. For the sixth year in a row, there has been an increase in income from the provision of the universal postal service. The development of electronic commerce has influenced the fact that revenues from other postal services are also continuously growing. The volume and income by type of services provided in the Republic of Serbia for the year 2021 are shown in Table 2 (RATEL, 2021).

Table 2

Volume and Income by types of Services provided in the Republic of Serbia for 2021

Types of service	Volume in thousands of RSD	Volume in thousands of EUR	Income in thousands of RSD	Volume %	Income %
Universal postal services	261.833	2.232	11.258.765,00	83,7	40,6
Other postal services	514.143	4.383	16.462.699,39	16,3	59,4
Total	312.976	2.668	27.721.464,39	100,00	100,00

Source: (RATEL, 2021)

3. Perspectives on the Development of the Postal Services Market

New technologies affect the development of new products and services in two ways. The first way involves providing the opportunity to create new and value-added services, using advanced technology. Second, it implies forcing operators to create new services, to satisfy changes in consumer demand, which are a consequence of the emergence of e-substitution (Grgurović *et al.,* 2013). According to the report of the UPU on the development of postal traffic for 2022, it was concluded (UPU Report, 2022):

- 2021 was a relatively positive year for the development of postal services worldwide. The quality of services has improved significantly since the onset of the COVID-19 pandemic.

- The decline in the volume of letter-carrying services in domestic traffic is slowing down for the first time in a decade, and the volume of parcel services in domestic traffic continues to grow.
- Most countries were able to make progress. According to the 2IPD index (Integrated Index for Postal Development), the countries that achieved the greatest progress are: Austria, China, France, Germany, Japan and Switzerland.
- The importance of postal services should be further strengthened. Many countries should review their business models and adapt them to the needs of the next generation of users.
- Progress should be directed toward sustainable development.
- For the progress of UPU members, it is important to intensify cooperation, especially in the area of data exchange.
- By the above, and taking into account the aspect of sustainable development that meets the needs of the present, without questioning the ability of future generations to meet their own needs, two possible directions of development of the postal services market will be presented below. These two aspects are also listed on DHL's socio-business trend radar.

3.1. Sharing Economy

The joint use of human, physical and intellectual capacities is increasingly recognized as a new economic model that will significantly influence the future development of the economy and society as a whole. At the base of this model, for which the term sharing economy is used, are economic activities in which participants share access to products or services, instead of having resources in separate ownership (Parezanović, 2018). The goal is to share underutilized assets in a way that increases efficiency and sustainability (Pamucar *et al.,* 2022; Senapati *et al.,* 2023).

The term sharing economy first appeared in the public eye during 2011 as a result of the huge success of Airbnb and Uber (Martin, 2016). Since then, this business model has been transferred to other areas of the economy. The concept of the sharing economy, in various business activities, is in the sphere of interest of a large number of authors (Ganapati and Reddick, 2018). The shared economy significantly overlaps with other concepts, such as: collaborative economy, collaborative consumption, access economy, platform economy, and community-based economy (Belk, 2014). The sharing economy varies and operates in different geographic locations around the world, under different, complex policies and regulations. Therefore, the challenges of business entities are numerous and each geographical area has its own unique context (Hossain, 2020).

The concept of sharing economy includes various disciplines, such as: anthropology, business modeling, consumer behavior, economics, geography, innovation, law, management, marketing, psychology, sociology, sustainability, tourism, and transactions) (Acquirer *et al.,* 2017; Heo, 2016).

Large companies are often unable to respond to market demands on their own, which is why they are forced to cooperate with other companies. To become more successful, they join together for the sake of common interests. In the literature, collaboration is cited as one of the most important elements for achieving competitive advantage, and the focus is on initiatives to connect companies at a strategic level. According to Hogarth-Scott (1999), cooperation implies openness, sharing risks and rewards, to improve performance. Spekman *et al.* (1998) define cooperation as an alliance between organizations to share large costs and investments.

Sharing economy models are most often used when the price of a particular asset is high and/or when the utilization of the asset is low. In the framework of the sharing economy, the subject of the offer on the market can be time, services, or property, while the demand is based on the principles of cooperation, solidarity and reciprocity. Although the beginning of the development of the concept of sharing economy was motivated mostly by economic reasons (economic savings as a goal), today the sociological importance is increasingly highlighted, i.e. the contribution to the creation of a "sustainable society", as well as environmental sustainability (Parezanović, 2018).

Three key characteristics of the sharing economy are: platform leverage, peer-to-peer interaction, and underutilized resources (Chase, 2015). Also, this business model includes three actors: the platform provider, the service provider, and the customers (Benoit *et al.,* 2017). According to Barnes and Mattsson (2016), the main drivers of the sharing economy are: economic, environmental, political, social and technological factors. In the literature, motivation is cited as the key to the success of the sharing economy (Acquier *et al.,* 2017). Reasons for motivation can be different: including convenience, flexibility, home benefits, interaction, local authenticity, community, and economic benefit (Guttentag and Smith, 2017).

According to Barann *et al.* (2017) the challenges facing the sharing economy are privacy and security. The information asymmetry between service seekers and providers in SE is also high (Martin-Fuentes *et al.,* 2018). Despite the challenges, the sharing economy is gaining ground in various sectors around the world.

In the field of transport, in Serbia, the representation of the sharing economy is only at the beginning of its development. In the market of transport services, there are ride-sharing and vehicle-sharing platforms, as well as online services for on-demand driving. However, these models have not been popularized enough and have not found acceptance in practice. Only some of the reasons for this are insufficient support from local and regional authorities, as well as insufficient user familiarity with the models of operation and the benefits of using them. Also, some of these services are not adapted to the conditions of our market either in the legal (illegal business) or tariff sense (Parezanović, 2018).

In the paper (Dumnić *et al.,* 2021), the authors consider existing and potential forms of cooperation in the postal services sector. The paper (Janjevic *et al.,* 2016) concluded that appointed and private operators have expressed interest in urban consolidation centers, although there are many uncertainties regarding the implementation of consolidation scenarios, such as the number, location and size of consolidation centers, car park, regulatory and market framework and operational agreements.

3.2. Sustainable Logistics

Sustainable development is a term that is increasingly used in various aspects of life, including private, business and social. This concept is becoming more and more important because it is crucial for planning and improving the future of the next generations. Three basic aspects make up sustainable development, namely: economic, ecological and social aspects. The economic aspect refers primarily to the economy, ecological to responsibility towards the environment, and social to responsibility towards society at all levels. By applying sustainability methods in business processes, the total cost is reduced by using fewer resources, reducing the amount of waste and reducing activities.

The term sharing economy is also linked to the broader concept of the circular economy, which aims at efficient and sustainable use of resources. The circular economy was created as an alternative to the linear model of the economy in which the basic paradigm was "use (resources), produce, consume, discard". The contribution of the sharing economy to the circular economy is reflected in the increased use of resources through their greater/more frequent use, which increases the chances of starting a new cycle of production (Parezanović, 2018). The circular economy is a system that aims to balance economic growth with environmental protection, taking into account the limitation of resources. Emphasis is placed on making resources last as long as possible through a product design that will enable longevity, business models such as sharing, reusing and repairing, and finally recycling. In this way, a circle is created in which there is almost no waste (Milutinović *et al.,* 2022).

Road freight transport systems have numerous negative effects: pollutant emissions, congestion, traffic accidents, noise, visual interference, infrastructure failure and resource waste (United Nations, 2011). It has been investigated that transport activities are a huge source of environmental pollution, and of the total energy consumption in the EU, 32% goes to transport, where 44% of that goes to burning fossil fuels, i.e. CO_2 emissions (Keleş & Güngör, 2021).

Sustainability began to be introduced into the field of logistics in the late 1980s and early 1990s. During the 90s of the last century, it was observed that the transport industry contributes the most to the destruction of the environment, which is why numerous studies were carried out that confirmed this assumption (Rodrigue *et al.,* 2017). Green and sustainable logistics is defined as the planning, control, management, and implementation of the logistics system through advanced logistics technologies and environmental management, aiming to reduce pollutant emissions and improve logistics efficiency (Bask and Rajahonka, 2017). This term implies the provision of green products and services to customers, but also the sustainability of the entire life cycle of the logistics process (Zhang *et al.,* 2015). The shortcomings of the logistics system (e.g., personnel dependence, limited intelligence, and vulnerability (Srivastava, 2007) reduce the performance of the supply chain, and since the demand for logistics services is growing, there is damage that irreversibly affects the economy and the ecosystem.

To improve the sustainability of the transport process, the papers suggest the application of new business models such as: smart logistics (Lee *et al.,* 2016), low emissions zones (Dablanc and Montenon, 2015), freight consolidation (Aljohani and Thompson, 2018), outsourcing and crowd shipping.

A unique advantage of the postal sector is the ability to reach each consumer, as well as traditionally good partnerships with the business sector that collect data on the location of objects that could be recycled, reused, or repurposed (UPU Report, 2022).

In the paper (Milutinović *et al.,* 2022), it was established that there is a need to review and redefine transport logistics, because transport in urban areas is often difficult to achieve, and sometimes impossible. One of the possible solutions is a consolidation center, which would be used primarily by postal and logistics operators. This would enable the sharing of data on request numbers with the aim of reducing mileage and the number of vehicles used, directly increasing traffic safety, reducing carbon dioxide emissions and enabling the optimization of storage utilization, defining key routes and their optimization and utilization of the loading space of the shared vehicle.

Examples of good practice of green solutions mentioned in the UPU report, which contribute to the reduction of CO_2 and environmental pollution in general, are (UPU, 2011): eco-driving training, information and communication technologies and reducing the paper use, energy-efficient postal units, use of renewable energy sources, environmentally responsible products, services and consumables, waste management, raising users' awareness of environmental protection, green logistics network (Pourhejazy *et al.,* 2019), reverse logistics (Ramos *et al.,* 2014), emission control (Mattila and Antikainen, 2011), collaboration, outsourcing (Lee *et al.,* 2016), etc.

4. Conclusion

Throughout history, the postal sector has incorporated innovations that have developed in the field of communications and traffic, improving existing or developing new services. Taking into account the importance of the postal sector for the economic development of every country, the need for constant development of this sector and finding new innovative technological solutions and services is highlighted. With the growth of competition in the postal sector, postal operators encounter numerous restrictions in their operations, which is why the proper allocation and use of available resources will be very important. In this sense, it is extremely important for the management to have knowledge of the mentioned challenges (trends), in order to better understand the requirements of modern demand and adjust the offer according to the user's requirements.

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