

# PROPOSAL OF METHODOLOGY FOR CUSTOMERS RELATIONSHIPS ESTABLISHING IN TERMS OF TRANSPORT SERVICES

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## Abstract

Currently, the market is focused not only on the quality of services, but also on customer comfort, requiring service providers to constantly modernize their methods of operation. Due to the progressing digitization of various areas of business activity, it is necessary to implement current available technological aids in order to maintain competitiveness and build long-term relationships with the client. Delivering products to the point of consumption is a very important element in the supply chain, and transport companies act as both intermediaries and service providers. The article is a proposal of a methodological solution for companies dealing with transport services in the field of building long-term relationships with the client using modern technologies and methodologies. The results show the strategies and systems with which transport companies can strive to build a competitive offer in the supply chain. As a target solution, it was proposed to use solutions such as Customer Relationship Management (CRM) in the process of developing a methodology for building relationships with customers in the area of transport services. The development and functioning of the global economy market is not possible without a network of transport connections-communication infrastructure, as well as a service provider-consumer relationship.

**Keywords:** management; transport sector; consumer relationship; customer satisfaction; Customer Relationship Management

## 1. Introduction

Customer Relationship Management (CRM) is the technology used to manage all of a company's relationships and interactions with existing customers and prospects. The goal is simple:

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improve business relationships to grow your business. A CRM system helps companies stay in touch with customers, streamline processes, and improve profitability.

The concept of transport was created on the basis of the Latin word *transportare*, meaning to move, to transport. Currently, it is broadly defined as the movement of people, cargo (subject of transport) in space using appropriate means (means of transport). Other definitions stipulate that it is the provision of services consisting in the movement of persons and cargo as well as directly related auxiliary services [27, 33, 34]. According to [36], the concept of the word transport means the technological process of any distance transfer, that is, moving people, objects and energy. Transport is defined as a conscious movement of matter and energy [14]. Therefore, we can talk about the concept of transport in three different senses [12]: functional as an activity consisting in movement, subjective, as an activity separated from other activities (e.g. industrial, commercial), material, as material equipment for transport.

The classification of material components can be made in various ways, however, their basic division consists in distinguishing two basic categories: infrastructure and superstructure.

In economic terms, transport consists in providing a range of services for a fee, the result of which is the transport of people and materials, as well as the provision of additional services, which most often result in the movement of goods. Additional services include forwarding, freight brokers, etc.

The above definitions allow for making the conclusion that it is a complex concept, covering many activities accompanying the movement of a cargo or a person from the addressee to the recipient. The definitions also include any other action that is taken when loading, unloading or reloading the good.

The concept of transport must be distinguished from that of communication. Communication is a field in which the transmission of messages plays a role, and thus it is a communication system. Positions expressed, *inter alia*, in [20] indicate that the concepts of transport and communication are arranged vertically, where communication is hierarchically subordinate. According to this approach, transport is a broader term, and communication is a specialized term. In the publication [20] it was found that the concepts of transport and communication arranged horizontally, i.e. partially overlap. In the described case, transport is an activity consisting in the deliberate movement of people and goods, while communication is a process of coming to understanding between people, which consists of connecting (moving messages) and enabling interactions by means of transport.

Along with the changes taking place in the economy, transport solutions, undergo modification all of the time. The development and functioning of the global economy market is not possible without a network of transport connections understood as a communication infrastructure, as well as a service provider–consumer relationship. Transport is a technological process of moving people, objects or energy. Knowledge of the logistics system and its processes is essential for fully functioning and effective logistic activities in the field of goods

turnover. Building an appropriate relationship with the customer, taking care of customer service standards and professional customer service is a long-term and developmental process, which is nothing else than a mutual benefit transaction. Transport sector continues to grow year after year very rapidly. Transport companies operating on the common EU market must be more and more competitive. It is essential for companies to adapt to changing market dynamics, technological advancements, and environmental concerns to remain competitive in this fast-growing sector. Companies that invest in relations choose wisely. Customer satisfaction should be constantly tested in terms of satisfaction and loyalty as well as the perception of the standards introduced and services offered [2, 29].

## **2. Description of transport services carried by the carriers to their customers in the selected EU countries**

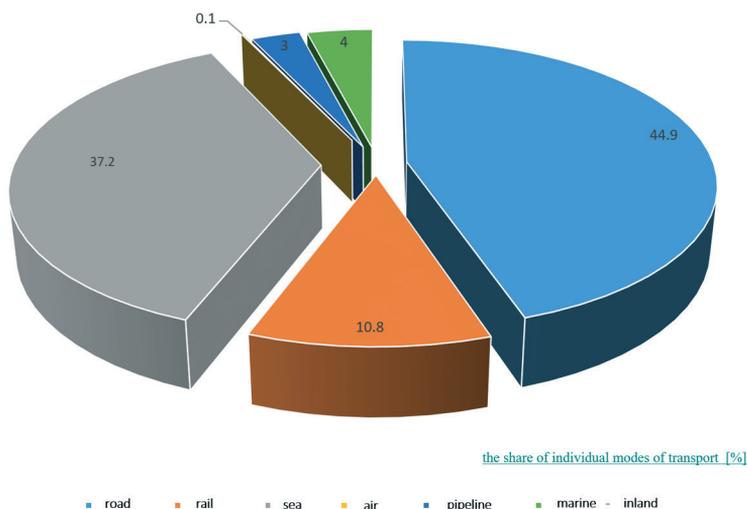
This section will describe the transport services carried by the carriers to their customers in the selected EU countries and Poland. The knowledge of the logistic system and its processes is essential for fully-functioning and effective logistic activities in the field of goods turnover. The functioning of enterprises operating in contemporary global markets without effective logistics is almost impossible, hence the constant search for tools to improve its processes, which are an added value for the customer, while maintaining the relationship between costs and the quality of services provided [45, 47]. It is necessary to distinguish the types of transport due to individual European countries.

### **2.1. Analysis of the transport services market in Europe**

The European Union has the densest transport network in the world, and taking into account the network of roads and railways, it has a much better developed infrastructure per 100 km<sup>2</sup> than the United States and not much worse than Japan. The length of railway lines throughout the European Union is 215,720 km, 44% of which is electrified. The average density of railway routes in the Union is 57 km/1000 sq km.

The length of railway lines operated in the European Union has fluctuated in recent years. In many countries there has been a decrease in their length. The most significant – in Germany and Poland. In recent years, in Spain and Italy, there has been an increase in the length of railway lines. This was mainly due to the commissioning of new sections of high-speed rail. In 2018, the longest rail network of this type was in Spain (2,144 km), slightly shorter in France (2,036 km) as well as Germany (1,285 km) and Italy (923 km) [11].

Fragmentation of the transport market limits the quality of transport services in Europe (Figure 1). As a consequence, the dynamics of the industry's development is disrupted and economic growth remains untapped. Rail transport, in particular, has difficulty achieving its potential despite its comparative advantages over medium and long distances (namely speed and convenience for passengers and economies of scale in freight transport) and the significant impact it can have on both decarbonization and transport and inclusive mobility [17].



**Fig. 1. The share of individual modes of transport in the transport performance in the transport of goods in the European Union in 2012 [9]**

The European transport sector has potential for economic growth. Taking advantage of the market opportunities of the economy sector remains the key direction of development in the industry. Transport and logistics account for approximately 17% of enterprise costs and 13% of household expenses. Providing adapted transport and logistics services will have a direct impact on the functioning of citizens, enterprises and countries. In order to take advantage of the economic growth opportunities related to transport – forwarding – logistics services, it is necessary to reduce the costs related to the implementation of transport services. In the European Union, around 11 million people are employed in the transport, logistics and storage sector, representing more than 5% of total employment (these are data from the year 2016) [23] and accounting for almost 5% of GDP [24]. It is emphasised that these are data from the year 2015.

The challenges of the transport sector in the European Union include: creating a well-functioning Single European Transport Area, connecting Europe to modern, multi-modal and safe transport infrastructure networks and moving to low-emission mobility, which also includes reducing other negative externalities of transport. From a social point of view, affordability, reliability and accessibility of transport are of key importance. However, these goals were not achieved in all areas.

The article [30] shows role of service quality in sustainable urban transportation system. The urban transportation system is a very specific type of transport. According to the data included in [18] the highest increase in total expenditure on transport – forwarding – logistics in 2012 was achieved by the following countries: Switzerland (22.1%), Norway (10.7%) and Bulgaria (19%). Unfortunately, as many as 13 EU countries saw a decrease in costs in

the logistics industry, and the largest decrease in costs was in Greece [–35%] and Slovenia [–25%]. Compared to the years 2008–2010, the decrease in logistics costs in the EU was much greater, as it covered as many as 19 countries. Many companies have pursued business model innovation to achieve dual institutional logic of social–economic value creation and be competitive in the market, for example to attract donors and volunteers or establish earned revenue streams – in case of nonprofit social purpose organizations. New business model entails “fundamentally rethinking” to create value through the exploitation of various business opportunities [43].

The market of transport and logistics services is directly proportional to economic conditions. The enlargement of the European Union in 2004 allowed for the elimination of borders and customs barriers in the exchange of goods. As a result, an increase in trade turnover between the member states was observed. Currently, the size of the transport services market in the European Union is over 450 million inhabitants.

The simplification of administrative procedures and access to cabotage transport resulted in an increase in the number of outsourced transport services and, at the same time, a reduction in freight rates in the territory of the European Union. The unification of both the transport policy and the infrastructure itself is one of the most important elements of merging individual EU countries into a single, economically and socially efficient structure [7]. Activities require knowledge of the limitations and shortcomings of infrastructure in individual EU countries.

The transport market in France and Spain has a structure similar to the Polish one, but much higher labor costs. The salary of a French driver is three times greater than the salary of a Polish driver. Vehicle maintenance costs in Poland are lower, with comparable efficiency of international transport companies.

Over the course of a year from the date of accession, changes in the structure of cargo took place. The number of full truck loads decreased in favor of general cargo. The differences between groupage and courier loads have become blurred. In the international transport, attention was paid to the increased interest in transport to the east: the Baltic countries and Ukraine, and the south: the Czech Republic, Slovakia, Hungary, and Italy.

The three largest companies on the Polish market, i.e. Schenker, the Raben Group and DHL Express, generate a quarter of the revenues of all companies, offering comprehensive services in the field of transport – forwarding – logistics (TSL). The revenue dynamics in companies with Polish capital in 2015–2020 was over 120%, and with foreign capital 114% [11]. Research on the transport market showed that over 75% of carriers left the logistics services related to the entrusted goods to shippers.

The courier services sector has adapted its offer to the requirements of the united Europe. On the domestic market, the number of parcels in express traffic reaches 68 million items per year, i.e. about 1.5 parcels per citizen. In the EU countries, this indicator is more than 5 pieces per citizen. The integration processes have intensified the trade in goods, an example of which is Austria, where in the period 2005–2015 the number of parcels sent increased tenfold.

The pace of economic development and growing customer requirements mean that classic courier services consisting in guaranteed delivery of parcels on the next business day or at certain times to the indicated place are currently too poor offer. Global courier companies have gradually transformed into logistic integrators, expanding their offer in new areas of services with a high degree of specialization. A logistics operator can be called a transport and logistics company whose activities are characterized by:

- providing services based on modern IT solutions that guarantee timely, smooth and competitive transport,
- organization of a comprehensive and effective supply chain from the producer to the final recipient,
- building contacts and relationships with clients on long-term contracts.

Growing customer requirements imply small companies to take action with the tycoons on the transport services market. Following the adaptation to the market of transport services, Deutsche Post bought out the global brand DHL International and thus DHL Express and then Servisco was created. Euroad was taken over by the Dutch Vos Group, which resulted in the establishment of Vos Logistics Polska. Since the end of 2004, Spedpol has been operating under the colors of the global logistics concern Schenker. Messenger Service Stolica was taken over by the American postal concern United Parcel Service (UPS).

DHL Express is the largest shareholder on the day-after-post parcels market, with a 25% share. In this segment, Stolica before the takeover was second with a 22% share, followed by Masterlink Express ahead of United Parcel Service. Express shipments on local markets (the so-called City and Same Day) were carried out by the Stolica Service with a share of 25%, ahead of Masterlink Express and DHL Express.

For several years, the market of transport – forwarding – logistics has been witnessing a consolidation of the courier industry, as a result of which there is a combination of strictly courier companies with logistics – forwarding or transport – forwarding. Express courier services on the international market are provided in 25% by United Parcel Service, TNT Express Poland and DHL Express.

Two directions of development of the logistics operators industry can be indicated. Companies that have limited investment opportunities do not expand their offer, but invest in strictly defined tools and refine the services provided in detail. The strategy of logistics operators in this case is based on specialization and experience within a narrow segment of services. The second direction of development assumes universal action. Companies are expanding the range of services provided in accordance with the one stop shopping concept, which gives the customer the opportunity to obtain various transport services – forwarding – logistics from one supplier.

The future of logistics is IT systems supporting operational activities and information exchange systems between trading partners and a logistics operator. Extensive customer relationship management systems (CRM) make it possible to process orders and structure costs. Operators offer the option of placing orders on their websites, and then allow the

customer to track in real time at what stage of preparation a specific shipment is. This function applies to all stages of the service provided in the logistics chain. Article [40] shows the impact of firm-level and project-level IT capabilities on CRM system quality and organizational productivity, too.

Flexible public transport systems are a valuable component of the transport system [25]. Moreover, similarly to regular public transport, they are an important alternative to individual motorization [46]. The need to provide residents with the possibility of movement results, among others, from economic and social conditions (including counteracting social exclusion). The environmental aspect is also important.

In response, the changes identified, including: the demographic structure of the society, the sniffing of the number of passengers regularly using transport services, the abandonment of individual transport in favor of using collective transport services, in the 1980s, measures were taken to meet transport needs in a flexible manner. The distinguishing feature of flexible transport systems is their organization. In this aspect, it is important to point out the important role of the passenger in this process, which, depending on the type of flexible transport system, has an impact on the duration of the transport service and the choice of destination [2]. According to Eurostat data, in 2016 GDP per capita in current prices in Luxembourg amounted to over 90 thousand EUR. In the same year, the average for the EU-28 was less than 30,000 EUR, while in Poland this indicator slightly exceeded 11 thousand EUR. The service sector, including transport, dominates in the GDP structure, which affects the value of Luxembourg's GDP in 70%.

Factors of a social, economic and geographical nature affect both the level and the differentiation of the demand for transport services in Luxembourg. A much higher level of services is provided in areas with higher population density indicators. The city of Luxembourg is characterized by a high demand for road transport services, while the areas located in the northern part of the country are in lower demand. According to Statec data, in 2016 over 39 million shipments were transported by public road transport in the city of Luxembourg – around 8 million in the rest of the country.

Individual motorization is an important factor influencing the demand for transport services. Luxembourg is a country with a very high motorization index – in 2015 it was 661. Due to the cross-border location, some passenger cars can only be registered in this country, but used in another.

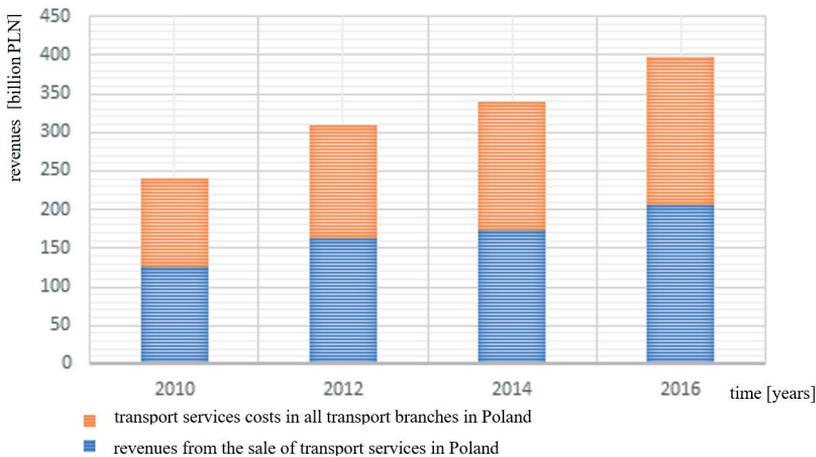
## **2.2. Analysis of transport services market in Poland**

Poland's membership in the European Union and the lifting of restrictions on access to the transport market have created new development prospects for Polish transport companies. They also translated into conditions of competition between enterprises providing services due to the access to the market of enterprises with international potential. The number of transport enterprises, their size, resources and achieved economic results determine the

ability of enterprises to cope with changes in the legal environment, affecting the level of costs of services provided.

Transport is a key area of the Polish economy that directly affects the development of the country and the quality of life of the society. It is an industry that is constantly developing, as evidenced by the increase in revenues from transport activities conducted in Poland (Figure 2).

Since 2010, sales revenues have been growing steadily in all transport sectors. These revenues include revenues for: transportation of cargo, passengers, luggage and mail, as well as for reloading, forwarding, storage and warehousing of goods, and other services related to transport services. In 2016, revenues from transport activities increased by 81.7 billion PLN compared to 2010, while the costs resulting from the operating activities of carriers increased by 77.3 billion zloty.



**Fig. 2. Revenue and expenses of transport activity in Poland [10]**

Road transport is a branch of transport that currently dominates in cargo transport in Poland and the entire European Union. The share of road transport in the EU-28 oscillates between [69–73]%. The economic importance of road transport as an industry in the European Union is determined by the generation of turnover at the level of 470 billion EUR (including transport of goods – 330 billion EUR, transport of people – 140 billion EUR) and employment of about 5 million people [7].

The competitive position of carriers from different countries can be assessed on the basis of the dynamics of changes in the volume of transport and transport performance as well as the share of carriers from individual countries in servicing the trade of goods on the European market.

The analyzes carried out on the basis of [7] showed that the dynamics of changes in the transport performance of loads by road carried out by Polish road transport companies in the years 2000–2015 was characterized by about twice as much growth dynamics than the EU-28 average for the indicated period, amounting to 120 billion Euro.

The analysis took into account the volume of transports broken down into international markets: transport in export and import, cross-trade and cabotage, and domestic transport handled by domestic carriers.

In the period under assessment, domestic transport accounted for around 66% of the total transport activity in the EU expressed in tonne kilometers. In 2015, the aggregate domestic transport performed by carriers from various countries amounted to 65.1% of transport performance in the entire EU. Integration within the single market contributed to a faster growth of international road transport than domestic transport.

In the years 2005–2015, the number of tonne-kilometers performed in international transport increased by 46%, and in domestic transport only by 6%. There was an increase in cabotage transport, which in 2005–2015 increased by 15%. The share of cabotage transport in relation to the total transport amounted to 1.8% [8].

After Poland joined the European Union, Polish carriers increased their share in the market of services in international transport [10]. In the years 2004–2015, the increase in transport performance amounted to:

- in the domestic transport – 37.8 billion tonne-kilometers (increase by 64%),
- in the international transport – 110.4 billion tonne-kilometers (increase by 251%),

where: in exports – 33 billion tonne-kilometers, in imports – 32.2 billion tonne-kilometers, in cross-trade – 37 billion tonne-kilometers, in cabotage – 8.1 billion tonne kilometers. The increase in transport performance by Polish carriers occurred both in servicing Polish foreign trade and trade in third countries. In the years 2000–2015, the highest growth in transport performance was recorded by the Polish carriers (258.7 billion tonne-kilometers) and it was almost four times more than the successive Spanish carriers and six times more than German carriers. The carriers from Bulgaria, Lithuania and Croatia (increases that did not exceed 26 billion tonne-kilometers) exhibited the dynamics increase in the volume of transport performance in percentage terms [7].

The activities of Polish carriers on the European market resulted in the taking over of a large part of the loads previously handled by carriers from other countries. The largest correction in the market in favor of Polish transport companies took place in the case of carriers from: Italy, France, Great Britain and Belgium. In 2015, the share of Polish companies providing transport services in the international transport market amounted to 25.2%, Spanish 11.7% and German 7.6%.

In cross-trade transport, carriers from Central and Eastern Europe perform over 80% of transports, with Polish carriers having the largest share of 29.5%. Carriers from the EU-15 countries provide transport services with a market share: Portuguese 3.5%, Dutch 3.1% [7].

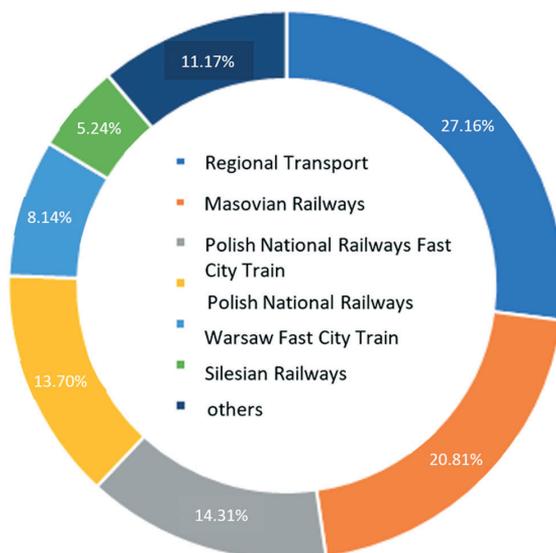
The competitive position of Polish transport enterprises achieved on the transport market results from the impact of internal and external competitiveness factors resulting from the socio-economic specificity and policy of the Member States [45]. Factors important for the competitiveness of road transport enterprises are: operating costs and prices of transport services offered, potential of employees and the enterprise as an organization, owned vehicle fleet and technologies used, environmental friendliness, quality of services and flexibility in adapting to customer needs [3, 21]. In [39] was shown the role of critical incidents in public transport. Travel behaviour changes at an older age, as research shows, so age also matters in travel. The article [4] deals with electric charging concept for road freight transport and the issue of noise, the barrier effect of roads and highways, and the influence of freight transport on air pollution. The research presented in the article [28] examines the small-scale social network processes of people involved in organisational innovation and the strategic behavioural orientation to connecting people in their social network.

Demand forecasts until 2030, based on the assessments of macroeconomic, technological, social and European conditions known at the end of 2010, show that the global demand for cargo transport has increased from 1,759 million. tons in 2009 to 2149 million. tonnes in 2020 and will increase to 2500 million. tonnes in 2030 [11].

Due to the location of Poland in the center of Europe, important international transport routes intersect here, connecting the east with the west and the north with the south. After the political and economic changes that took place in Europe, including Poland in the 1990s, the economic situation turned out to be a development opportunity for the state's economy.

Undoubtedly, with the enlargement of the European Communities and admission to Poland, a lot has changed for the European economy, especially for the transport industry. Poland has become an important partner, especially on the road transport market, and in 2015 Polish carriers generated 14.4% of the transport performance in Europe and 24% of the transport performance in international transport. It is estimated that Polish companies currently serve approximately 25% of the road transport market in Europe.

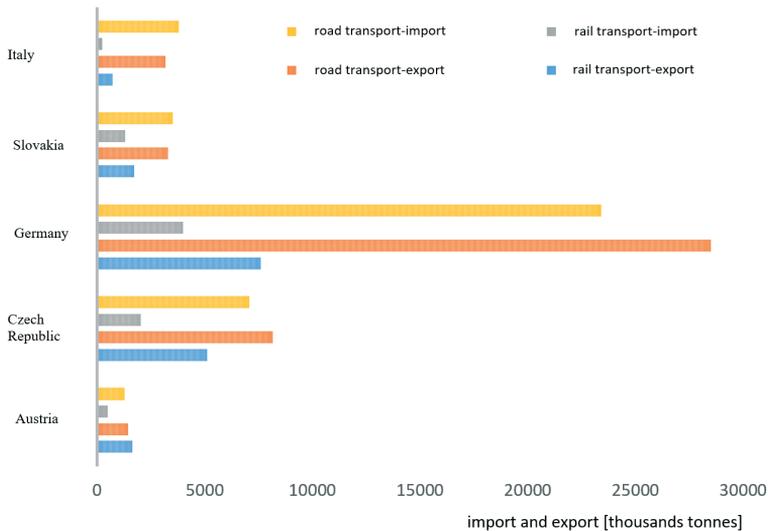
In 2004, we registered about 9 thousand transport companies, while currently there are about 30 thousand of them. They have over one hundred and eighty thousand vehicles at their disposal. The attributes of Polish transport companies are: unlimited (until recently, more on that further on) access to the common market, highly qualified personnel, great flexibility and adaptation of the offer to the customer's needs, modern and ecological fleet and good geographical location. The weakness of Polish transport is the huge debt of our road transport companies, which currently amounts to over 10 billion PLN, and their low profitability reaching the level of (1.5–3)%. In Poland the market share of the carriers by the number of passengers transported in 2016 is shown in Fig. 3. Last year, Regional Transport had the greatest importance in passenger transport in our country, carrying over 27% of all passengers interested in rail transport services, followed by Masovian Railways with the result of almost 21% and PKP Intercity exceeding 13% [Figure 3].



**Fig. 3. Share of the passenger carriers in the rail service market in 2016 in Poland [42]**

In Poland, rail transport provides transport services for the movement of people and cargo. Taking into account the number of all transports, completed rail transport in Poland ranks second, right after road transport. Comparing passenger transport by rail in 2010 and in 2016, it can be stated that the use of the discussed type of transport is growing – in 2016 it increased by 3%. The interest in rail transport services is increasing in favor of road transport. In 2016, rail transport transported about 5 million tons of goods more than in 2010. Similarly, a decrease in the transport of goods was recorded in road transport (by the same number – about five million tonnes). The rail was found to have taken over some of the freight from the road transport.

The example of five countries belonging to the European Union shows the share of intra-community imports and exports realized with the use of road and rail transport (Figure 4).



**Fig. 4. Import and export of goods with rail and road transport in 2016 [10]**

The financial performance analysis shows a positive financial result for rail passenger services from 2016. From 2010 onwards, revenues from rail freight operations are significantly higher than the costs related to transport. PKP CARGO had a share in the weight of goods transported by rail in 2016 with the result of 44.87%. DB Cargo Polska was second, with a share of 17.99%, and Lotos Kolej (5.70%) was third. PKP CARGO also had the largest share in the employment structure among railway carriers in 2016, amounting to 68.2%.

Railway operators providing transport services in Poland have at their disposal a sufficient number of locomotives and wagons intended for the transport of people and loads. In 2016, the number of means of railway transport was, respectively: 4004 locomotives, 6.975 passenger cars, and 87.598 freight wagons.

### 2.3. SWOT analysis of the Polish road transport

The conducted studies [7] show that the territory of Poland is characterized by a lower level of transport accessibility than in Western Europe. The lowest accessibility was found in the nodes from the Zachodniopomorskie, Pomorskie, Warmińsko-Mazurskie, Podlaskie and Lubelskie voivodships. In the case of the index for freight traffic, regional disparities were generally higher than for passenger traffic.

The diagnosis of the condition of Polish transport and the analysis of trends emerging on the European and global transport markets provide the basis for a detailed identification of the strengths and weaknesses of transport, as well as its opportunities and threats, as shown in Table 1.

**Tab. 1. SWOT analysis of the Polish road transport**

strengths	weaknesses
<p>Poland's geographical location at the intersection of important transport corridors,</p> <p>good topographic conditions of Poland's location: flat terrain beyond the influence of seismic activity, favored to the construction of straight routes (important for high-speed systems and others with a guaranteed high standard),</p> <p>relatively low population density outside urbanized areas,</p> <p>low level of urbanization and industrialization of many areas facilitating the expansion of road transport infrastructure,</p> <p>constructed and developed network of highways and expressways, covering the sections with the highest traffic, including infrastructure connections in the area of Central and Eastern Europe (including key projects such as Via Carpatia and CPK),</p> <p>taking into account the environmental impact of transport in external costs,</p> <p>high density and increasing quality of the railway network in the main transport corridors guaranteeing deliveries to transshipment units,</p> <p>system of inland waterways, beneficial from the perspective of the development of road transport services,</p> <p>even distribution of regional socio-economic centers throughout the country,</p> <p>ensuring the continuity of the network of connections in the countries neighboring the Polish transport network – increasing international transport accessibility,</p> <p>the use of trends, the so-called fourth industrial revolution, in particular in the field of eco-economy, digitization and intelligent systems,</p> <p>development of modern technologies, in particular the development of the 5G network, improving the functioning of transport, including digital services,</p> <p>increasing transport accessibility,</p> <p>social support for activities related to the construction of modern road infrastructure (expressways),</p>	<p>Consumption of many elements of line and point infrastructure,</p> <p>the occurrence of bottlenecks and missing links in the network,</p> <p>lack of a completed coherent network of highways and expressways,</p> <p>lack of reloading and storage nodes enabling the construction of a national system of intermodal rail transport,</p> <p>no continuity of the technical class of connections between agglomerations,</p> <p>instability of modules integrating various types of road transport network infrastructure,</p> <p>the existence of bottlenecks and missing links in the road network,</p> <p>road transit traffic through urbanized areas,</p> <p>uneven regional distribution and accessibility of the network, including peripheral areas requiring inclusion in the road transport network,</p> <p>financing of national road infrastructure with liabilities – increasing debt of the National Road Fund (KFD),</p> <p>insufficient inter-sector integration of transport, due to the low quality of infrastructure and maladjustment of solutions in individual transport segments,</p> <p>asymmetry of transport demand, directed mainly to road transport,</p> <p>limited transport accessibility of Polish seaports and lack of their integration with cargo terminals,</p> <p>a few elements of intelligent systems and innovative networks implemented for road transport,</p> <p>low level of road safety, especially with regard to the safety of non-motorized road users,</p> <p>a large number of road accidents,</p> <p>limited tariff integration in collective transport;</p> <p>ineffective and costly solutions for preventing the negative impact of road transport on the environment,</p> <p>high environmental burden from road transport,</p>

<p>integration of the inter-sectoral and European interoperability of the regional and local road network,</p> <p>development of innovative supporting ITS technologies traffic management and safety,</p> <p>EU transport policy supporting the development of environmentally friendly types of road transport,</p> <p>national industrial potential in terms of manufacturing and execution in the area of transport infrastructure,</p> <p>dynamically developing market of enterprises from the TSL sector, in particular road carriers,</p> <p>strong position of Polish car carriers on the European transport market,</p> <p>high qualifications and practical professional experience in the provision of transport services for employees of most companies in the TSL industry,</p> <p>adapted, modern infrastructure of trucks and delivery vans in the amount that guarantees the possibility of servicing the domestic market and European orders,</p> <p>skillful and effective management of enterprises in the road transport sector,</p> <p>large share of public transport in servicing large cities,</p> <p>strong position of Polish carriers on the European transport market,</p> <p>the existence of a large, sustainable demand for transport, constituting the basis for the stable operation of road transport enterprises,</p> <p>a large number of primary and auxiliary road transport enterprises,</p> <p>comprehensive market offer of Polish seaports.</p>	<p>poor financial condition of the TFL sector and a high percentage of deficit enterprises,</p> <p>low profitability of the TSL industry.</p>
<p><b>opportunities</b></p>	<p><b>threats</b></p>
<p>Ensuring the continuity of the network of connections in the countries neighboring the Polish transport network - increasing international transport accessibility,</p> <p>using the location of Poland as a transshipment warehouse connecting Europe with Asia,</p> <p>social support for activities related to the construction of modern road infrastructure (expressways),</p>	<p>Persistence of the existing barriers delaying the implementation of infrastructure modernization, delays in the implementation of works on key transport routes,</p> <p>impermanence of the effects of network modernization caused by inadequate maintenance of the infrastructure,</p> <p>increasing costs of construction and maintenance of road transport infrastructure,</p>

integration of the inter-sectoral and European interoperability of the regional and local road network,

increasing transport accessibility,

transport policy supporting the development of environmentally friendly modes of road transport,

building bypasses of cities and towns lying within the network of international and national importance,

EU transport policy supporting the development of road transport,

the ability to maintain and strengthen the demand for the services of Polish car carriers on the European market,

dynamic economic growth causing increased demand for road transport,

growing value of foreign trade turnover, especially export,

sustainable demand for road transport, which is the basis for the stable operation of transport, forwarding and logistics companies,

the possibility of improving the quality of services provided by the TSL sector as a result of improving the conditions for the development of competition in this market,

strengthening the potential and modernity of Polish transport with foreign capital,

the use of trends, the so-called fourth industrial revolution, in particular in the field of eco-economy, digitization and intelligent systems,

development of low-emission and zero-emission drive technology,

development of electromobility technologies and autonomous vehicles for use in regional road transport and as a last-mile solution,

increasing effectiveness of measures used in road transport safety improvement systems,

development of innovative IT technologies adapted to the implementation of road transport activities, supporting traffic management and safety, and integrating various modes of transport in order to efficiently use the existing resources,

instability of transport financing from EU funds,

insufficient financial resources for the modernization of transport and logistics systems,

the expectation of self-financing of the road transport industry,

marginalization or displacement of some large Polish carriers and operators from the market,

fiercer competition in the transport markets,

progressive weakening of the transit role of the Polish transport system

transport and logistics systems;

limiting the functioning of Polish road transport companies on European markets as a result of unfavorable legislative changes on the EU forum and inadequate actions of the European Commission,

downplaying the world premises in the field of building transport infrastructure,

creation of modern, competitive infrastructure facilities in neighboring countries,

relatively large share of naturally valuable areas in the country – consequences resulting from divergent infrastructural and environmental expectations,

an increase in the share of the environmental impact of transport in external costs,

ineffectiveness of measures to reduce the environmental nuisance of road transport,

increasing environmental restrictions in infrastructure projects,

upward trends in oil, raw materials and energy prices on world markets,

climate change and the recently increasing threat of natural disasters,

staff shortages in the TSL sector,

unfavorable age structure of the population and negative demographic forecasts,

brutalization of competition in transport markets,

further weakening of the transit role of the Polish transport system.

development of modern technologies, in particular the development of the 5G network, improving the functioning of transport, including digital services, improving the inter-industry and technological integration of the road transport system, integration of railways and inland navigation with the road transport system, adjusting the fleet of road transport vehicles in terms of environmentally friendly solutions.	
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The assessment of Polish road transport presented in the above SWOT analysis synthetically shows the strengths of Polish transport. The analysis of the conditions allowed for the conclusion that the location of Poland in the center of Europe and at the intersection of the main communication routes, as well as the favorable topographic conditions of the territory of our country, create favorable conditions for the service of transit traffic and the development of enterprises in the road transport industry operating in the field of transport, forwarding and logistics.

It was emphasized that the location of Poland in the center of Europe and at the intersection of the main communication routes, as well as the favorable topographic conditions of the territory of this country, create favorable conditions for the handling of transit traffic and the development of enterprises operating in the field of transport, forwarding and logistics.

To take full advantage of these advantages, it is necessary, inter alia, to expand, modernize and revitalize the existing road transport infrastructure. A well-developed transport infrastructure, allowing for the satisfaction of transport needs, is an indispensable factor in creating the competitiveness of regions. The level of meeting these needs can be treated as a measure of modernity and openness of regions. Infrastructure properly equipped with modern technological solutions will contribute to strengthening the competitive position of the Polish economy on the international market and maintaining the favorable development trend of enterprises providing transport services.

## 2.4. Comparison of transport services

Road transport is the most widespread means of transport used in most logistic operations. The extensive road network allows carriers to reach virtually any place, which means that transport services can be provided to virtually everyone. Due to the low capital barrier to entering the market of car carriers, there is a large number of companies providing this type of service, thanks to which we have a high availability of services in this branch of transport.

In Poland, this type of transport accounts for as much as 80% of transport services. It guarantees fast and trouble-free delivery to recipients in every corner of the country and the

world. This type of transport is used by both small companies and large enterprises, because adapted motor vehicles enable the delivery of various types of goods from industries such as food, industrial, and even dangerous goods. Road transport is the most frequently chosen method of carrying out the transport of oversized shipments. Road transport enables the adjustment of services to the individual needs of the client.

Road transport has a number of advantages – mainly due to the spacious arrangement of roads, it is characterized by the highest density and coherence of infrastructure among all transport modes, and at the same time the most favorable adaptation of the road network to the distribution of production and settlement, as well as the adaptation of means of transport to transport almost all types of loads. Moving on to the features of road transport, it should be emphasized that its great advantage is the travel time, and especially the operational speed, which is of particular importance on short and medium distances. Road transport is characterized by high frequency of journeys (frequent trips, the possibility of moving many vehicles on the route at the same time, at different stages), as well as the possibility of using various, more convenient routes. Hence, road transport is indispensable when we deal with the transport of goods that require fast delivery. In addition, it is characterized by the greatest possibilities of direct transport, i.e. almost unlimited possibility of substituting the rolling stock practically anywhere, which creates a door-to-door relationship without time-consuming intermediary operations (e.g. transshipment). It is much less likely to be stolen and more flexible than rail transport. There are also no time constraints resulting from, for example, timetables, therefore it is possible to carry out transport in accordance with a strictly planned schedule, which directly affects the timeliness and punctuality of services. In this branch of transport, there is undoubtedly great access to the service market. Transport infrastructure in the form of roads is generally available (public roads), and the cost of purchasing or leasing a vehicle is not very high when compared with the cost of purchasing an aircraft or a sea-going vessel. In addition, the share of fixed costs in the activity of a motor transport company is comparatively low, and operating costs are not excessive. It is the main mode of passenger and freight transport in the European Union.

### **3. Methodology of building relations with the customers in the field of transport services**

The authors present below methods of building relations with the customers in the field of transport services. Changes taking place in the market environment of service enterprises, in particular of a transport nature, increase the importance of customer retention and building entrepreneur-customer relations. In response to the persistence of trends such as: intensification of competition, market saturation, growing consumer requirements, increasing consumer access to modern technologies, which means the possibility of comparing various offers on the market, companies providing services strive to use the maximum potential of long-term relationships with customers. Established relationships with customers allow companies to obtain benefits related primarily to improved communication, lowering costs, increasing turnover and providing more satisfactory customer service.

Relationship marketing was first introduced as a separate marketing concept by Leonard Barry [46]. The strategic goal of the company's activities is to build strong relationships with customers focused on achieving profit, the essential elements of which are trust, quality and service. According to the concept, an enterprise should establish relationships with other market participants, including other business entities and customers with whom the loyalty-based relationships bring mutual benefits and are extended over time [22]. The implementation of the assumptions adopted under this concept forces enterprises to have the ability to retain customers. The above requires good knowledge and providing them with greater and greater benefits, increasing the level of their satisfaction.

The strength of the relationship is the result of the following factors: subjective quality of the service, subjective value, subjective value of the effort, customer commitment and satisfaction, and ties [44, 48]. The results of [35] indicate that although purchase satisfaction is a strong indicator of customer retention, the factors underlying purchase satisfaction do not have nearly the same impact on customer retention directly as purchase satisfaction. The article [16] examined satisfaction, social media engagement and purchase intention as important elements influencing customer satisfaction. In comparison, the article [10] examines customer satisfaction, social media engagement and purchase intention as important mediators in the proposed model. The theoretical and practical implications of the study are then discussed. Table 2 compares the assumptions of the functioning of traditional and relational marketing.

**Tab. 2. Characteristics of different concepts of traditional and relational marketing [6, 36]**

trait	marketing	
	traditional	relational
perceiving the product	the features of the product are the most important, which is one of the marketing elements, shaped in accordance with the needs and preferences of buyers	product – relations between the company and the customer
the essence of the activity	focus on single product sales	applying all company resources for building and strengthening the relation with the customer
value for the customer	created by the company and delivered to the customer	it is achieved as a result of the relationship between the company and the customer and it is created by both sides
benefits	the benefits of the product and cooperation with the customer generate high costs, which reduces the profitability of the business	working with customers benefits both parties and the relationship between the company and the customer is profitable
activity scale and relations with the customer	short-term scale of operation, moderate contact with the customer, limited attachment to the company	long-term scale of operation, constant contact with the customer, and high attachment to the company

trait	marketing	
	traditional	relational
customer service	irrelevant and analyzed mainly from the point of view of distribution and logistics	very important, considered on many levels, perceived as the work of providing the buyer with benefits, which requires calculation before, during and after the conclusion of a transaction with the customer
quality	perceived in the production context, in terms of technical aspects, compliance with standards and specified parameters	perceived in the context of all functions performed by the company, it plays an important role in strengthening the relationship between the company and the customer

Customers make a subjective assessment of the value of a product / service, taking into account: economic, information and emotional resources and comparing them with the subjective amount of expenditure they have to incur. Subjective value influences the client's satisfaction, which is the basis of his commitment and strengthening the relationship, which in turn has a direct impact on the strength of the relationship. Strong ties are not only about repeat purchases, which can also be the result of economic factors, it's an emotional attachment. Emotional value is created by the interaction of the company and its employees with the client so that they feel important, distinguished and appreciated. Based on the intensity of the partnership with the client, the gradation of the relationship is determined. Customer relationships may be of a different nature depending on the type of customers [5]:

- relationships with occasional and potential clients serving to initiate contacts, which may be the basis for establishing more lasting relationships in the future,
- relations with customers making purchases for the first time – the company should take care to build trust and ensure satisfaction leading to repeated purchases,
- relations with customers with a moderate frequency of purchases – actions aimed at developing consumer preferences towards the offer are of key importance in building dependency,
- relationships with regular customers, aimed at shaping long-term relationships and strengthening customer loyalty,
- relationships with dissatisfied customers – shaped in the process of managing customer complaints, an appropriate attitude towards complaints and complaints is one of the conditions for customer retention.

The key factors that build customer loyalty are: high quality of the offer, professional service, trust and partnership relations. What is significant is the satisfaction that takes place when a product or service fully meets the client's expectations, when it feels appreciated, important to establish unique and real relations with the company [26, 41]. In the case of services, there is a favorable correlation between quality and satisfaction, but factors such as price and quality may be less important to the customer in the face of positive, satisfactory relationships with the company.

Strong relationships with customers in terms of competitive position are of paramount importance, especially in the service sector. Regular customers use the services in the long term and recommend the offer to others, thus expanding the group of buyers. Accordingly, relationships should be based on partnership and seek mutual benefit. In the transport services sector, individual marketing is of key importance. It is extremely important to collect and skillfully use information about customers in order to improve the quality of service, build strong relationships, improve the customer retention rate and thus maximize profits.

Relationships must be two-sided, ensuring continuous communication and free flow of information between the company and the client. The information collected on the customers' preferences significantly increase the level of service, and thus the comfort and satisfaction of the customer as well as building long-term relationships based on trust.

On the basis of the information contained in [32], the consequences of the created service provider – client dependencies were determined. It was found that the benefits for the company include, first of all: permanent communication with the customer, better organization of customer service processes, immediate and precise adaptation of the offer to the customer's needs, increased sales, improvement of service quality and reduction of the total costs of the company's operation. Cost reduction can be achieved, among others, by improving the processes related to delivering the offer to buyers and reducing the costs generated in the course of acquiring new customers.

Sales in forwarding, logistics and transport are characterized by this, compared to other industries, that they are based on interpersonal and business relationships, which are much more important than the actual purchase and sale transactions. The complexity of the process of delivering value to customers means that a new, different way of transport management is needed – ensuring a quick and flexible response to changes, based on innovation and creativity, in which formalized direct control mechanisms are replaced by building relatively durable, also informal relationships, based on cooperation and trust.

Partner transport management is a concept based on the CPFR with a particular emphasis on transport [36]. Customer Relationship Management (CRM) is a holistic process that integrates all partners in the supply chain to minimize inefficiencies in transport planning and the implementation of the transport process [13, 37]. The purpose of using CRM is to improve customer service, reduce costs and increase the efficiency of the transport process by establishing and developing relationships between all its participants (suppliers, recipients, carriers, sub-suppliers, etc.). The approach is based on the assumptions:

- the company implements new tools and practices, thus trying to reduce investment expenditure on warehouse operations and shorten the delivery time, which in turn puts pressure on all partners in the process. Bearing this in mind, carriers face the problem of synchronizing and matching their assets to customer requirements.
- the determinant of the effectiveness of the transport – forwarding – logistics process is a direct reference to the effectiveness of the transport process and the carrier's ability to complete, move and distribute cargo, while maintaining market quality standards.

The involvement of carriers in the collaborative partnership process can have positive consequences for all direct and indirect actors in the supply chain.

Innovation is the area in which the sources of value are seen nowadays. The search for the ways of innovation can take place in many ways, i.e. by developing modern technologies, acquiring knowledge, and building and managing a network of relations between transport organizations. These three closely related methods constitute separate areas of searching for sources of innovation. The fundamental significance of the relationship may be proved by the fact that without partnership ties it is difficult to achieve the development of modern technologies or acquire knowledge, especially secret, hidden in the network of inter-organizational and interpersonal connections.

The inherent process accompanying innovation is the creation of new relationships between organizations and customers, which in turn leads to a new form of combining existing resources or developing a new solution. The scope and intensity of cooperation may vary, hence it may contribute to the development of the level of innovation to a varying degree.

In [31, 42], three levels of cooperation were indicated: basic, developmental and advanced. The effect of establishing cooperation on all three levels is different.

The first level is related to the improvement of information exchange and reduction of transaction costs. The cost of achieving these effects is relatively high, and the effectiveness of cooperation at this level is relatively low. The second level, in addition to the previously achieved benefits, focuses on the quality of service for the customer. Faster, more precise deliveries, supported by an efficient exchange of information, are a means to increase sales of services, meet customer needs and enable a more effective use of one's potential. The described stage of cooperation may be the basis for building lasting relationships based on trust, due to the creation of a belief in mutual benefits and effectiveness of cooperation. The third level of partnership is based on mutual, active coordination in order to achieve synchronization of processes such as planning, service development, marketing processes, etc. An additional effect is the initiation of the learning process. Constant exchange of information, discussions, the possibility of comparing the implementation of processes as well as building a network lead to an increase in the level of relations, innovation and competences of network participants.

To sum up, from the point of view of shaping the level of innovation of a transport organization, the ability to enter into network relations, the ability to use the network structure and its own position in it, and the awareness of the importance of network relations in creating value are of great importance. A key factor for innovation is the exchange of information and knowledge. As the dependency of cooperation expands, the opportunities for information exchange grow, and the network is a source of innovative advantage as it provides access to resources that would otherwise not be obtainable.

### **3.1. Areas of building transport–forwarding–logistics partnership**

The areas of building transport–forwarding–logistics partnerships are listed below. Without any of the following components, a transport–forwarding–logistics partnership would not be fully valuable.

- Suppliers (carriers, shipowners, consolidators, warehousing companies, agencies) – business partners. If direct contact is neglected, there is no current, feedback exchange of information, individual negotiations are skipped and no attempts are made to provide the service, and only a simple comparison is made “who is cheaper is better”, as a consequence this directly affects the relationship and contact with partners.
- Customers (direct customers, agents, traders, suppliers, competitors that subcontract services). As a result of the undertaken activities consisting in: paying attention to customers, maintaining current contact, the service provider is up to date with the current demand and key information necessary to receive further orders. Consequently, it builds its advantage in the area of partnerships.
- Competition, that is companies with which the company competes on the customer market. You should also build relationships with competitors, exchange industry information or deal with customers together. The basis of operation is information sharing, in accordance with the principle that someone can have better warehouse solutions, someone better solutions related to distribution, and someone else to sea freight.
- Inside the company – that is the most important place for each employee in the area of building relationships. It depends on how well you get on with your manager, board, team, whether you act together or individually, and whether the work goes smoothly or rather fierce competition will take place.

Partnerships are nothing more than the history of cooperation seen through the eyes of the customer. “Do they offer me good rates?”, “Are they competent?”, “Do the containers and trucks leave and arrive on time?”, “Do they have the information I need?”, “Are they calling and are they interested in me or they just send me the invoice and ask where the money is?”, “Do they meet all my logistics and transport needs well?”, “Do they have expertise?”. Customers answer these and many other questions during the first meetings and implementation.

Companies that understand how important the client and everything related to his world are win the game of partnership. The key is to prove yourself over the long term. The skills of a trader or a forwarder often make the customers follow them.

### **3.2. Subject of outsourcing of logistics services – transport, storage and forwarding activities**

The transition from the manufacturer’s market to the consumer’s market has forced companies to look for savings. This action allowed for a reduction in the costs of running a business and, as a result, a decrease in the price of services or products offered. Enterprises have started to outsource the performance of services to, inter alia, transport. As a result, the costs of running a business were reduced.

Manufacturing companies account for a large percentage of expenses related to running a business. Entities wanting to reduce the amount of costs started using the services of specialized entities providing logistics services as part of outsourcing. Out-sourcing of logistic services consists in separating the functions related to transport and storage of manufactured products from the organizational structure of a production company and their transfer to external economic organizations [38].

The subject of logistics services outsourcing are transport, storage and forwarding activities carried out within the organization. The condition for using outsourcing is the legal and organizational independence of the client. The contractor, in most cases, performs the tasks entrusted to him using his own resources (human, material, information).

## 4. Conclusions

Transport services are a complex issue. As it has been shown, the problem arises already at the stage of definition and requires referring to the theory of political science and economics. Due to the breadth of the field and the impact of transport on other areas of the economy, the subject cannot be considered in isolation from the policies of the European Union, including primarily social policy [1, 15, 19].

Transport is undoubtedly subject to legal regulations of the European Union and its member states. Its horizontal and vertical development implies the appropriate development of law. The transport policy of the European Union is conceptually and content-wise dynamic. However, the changes result not only from technological progress and the development of transport services, but are systemically determined by the evolution of EU law.

The assessment of the Polish transport services market leads to conclusions: the location of Poland in the center of Europe and at the intersection of the main communication routes, as well as the favorable topographic conditions of our country's territory, create favorable conditions for the handling of transit traffic and the development of enterprises operating in the field of transport, forwarding and logistics. To take full advantage of these advantages, it is necessary, inter alia, expansion, modernization and revitalization of the existing transport infrastructure. This infrastructure, properly equipped with modern technological solutions, will contribute to strengthening the competitive position of the Polish economy on the international market, and will also improve the quality of life of citizens.

Adapted criteria for entering the market of car transport companies and low operating costs have conditioned the creation of many thousands of transport companies. Companies competing with each other, introduced services at an increasingly higher level, keeping prices.

In the period 2018–2022, the road transport industry can expect a total increase in volumes by nearly 23% (in terms of tonnage of transported goods). It is estimated that the tonnage handled by it will increase from the level of approx. 1.17 billion tonnes in 2018 to the level

of approx. 1.44 billion tonnes in 2022, with an average annual increase of 5.3%. The dynamics of transport work handled by Polish carriers in 2018–2022 will be positive, but it will start to slow down compared to the current one due to the forecasted slowdown in economic indicators affecting the industry. The growth forecast for the industry in 2018–2022 consists of the following factors: changes in demand for transport services on the domestic market (in Poland) due to GDP growth forecasted at 3% in 2018–2022, Poland's foreign trade growth at 7% in the period 2018–2020 and at a positive level in 2021 and 2022. So far, the international transport segment has developed faster than domestic transport. After 2022, this trend may reverse due to the proposed changes to the EU law. In the long run, one can expect a further slowdown in growth both on the domestic and international market, in particular due to factors such as: aging society and a decline in population, labor shortage or possible lower support from the EU funds.

In the near future we can expect a significant shift in demand towards domestic services (and a smaller shift towards less-truck services). The geographical shift in services will be a consequence of further economic growth in the country, economic slowdown in Western Europe and the anticipated restrictions on operations abroad. The quality expectations regarding the timing of deliveries and the exchange of information between carriers and customers will also increase. The implementation of digitization solutions will be crucial for lowering operating costs, adapting services to the changing needs of the client and implementing solutions with high added value. In the short term, however, they will be available to large carriers who will have the possibility of implementing them, which may create an additional barrier for smaller entrepreneurs and contribute to an increase in market concentration.

The current level of digitization in the road transport industry is low, as in recent years carriers have not needed technology to grow. Global carriers see digitization as a new source of profits, but for local carriers it will be rather a source of efficiency gains. The platformization of transport services is revealed in passenger transport. There are platforms for ordering online services in the transport of goods, but due to the lack of a consumer dimension, they do not operate on a massive scale. Intelligent transport systems and solutions based on artificial intelligence or block chain have been in the testing phase for a long time, which is why they appeared on the market on a larger scale only in the years 2022–2023. In the initial phase (before the standards appeared), they remain beyond the reach of small players due to high capital expenditures for their implementation. For this reason, CRM solutions are currently used in many enterprises and will also build organizations of the future. The customer always plays a decisive role in determining the quality of services, and the degree of their satisfaction is very important.

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