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Land transport services – service structure and development dynamics analysis

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Abstract: The transport sector is a diverse structure, tasked with satisfying the need for displacement on part of the economy and society. The purpose of this article is to analyze the Polish land transportation sector in the scope of identifying, the segments of services, changes in the service offer, and to identify the development dynamics. For the purpose of completing this task, explanation has been provided, of the basic branching structure of the land transportation sector, wherein subsectors have been discerned. Furthermore, distinctive types and features of services have been indicated, provided by the various subsectors, and the task-based characteristics thereof has been prepared. The article also includes an analysis concerning the determination of the volume of transport completed under land transport throughout the last 10 years. The issues of the article and deliberations present therein, confirm the need to carefully monitor changes occurring in all transport subsystems. The main value of the article is the indication of the main segments of services of the Polish land transport sector.

Introduction

The transportation sector is a branch of the economy, which encompasses any and all activities related to the processes displacement, and the provision of transportation-logistics services. Such services result from the needs reported by the transportation market

participants. Transportation is subordinate with respect to other branches of the national economy; therefore the development level of this sector remains the indicator of the development of the entire economy. In order to characterize the Polish land transportation sector, consideration should be given to the complexity of its structure, and the various functional aspects. It includes companies offering various services, with various ranges of operation and size. Functioning therein are both large and small companies, offering a diversity of services, from typical transport, through freight handling, warehousing, packaging and packing, all the way to comprehensive servicing domestic and international delivery chains.

The land transportation sector is a complex structure, with its efficiency dependant on the integration of several systems. Of most significance, is the integration of the system of physical displacement with the information flow system, as it affects the occurrence of the transportation process directly. This sector is possessive of specific characteristics, resulting from its structural, technical-technological and organizational distinctiveness. Its most important distinguishing feature is trade in displacement services, and complementarity with other branches of transport.

Transportation services are provided with regards to the displacement of persons and commodities, therefore it is essential to provide additional services, particularly with regards to commodities. Furthermore, the demand for transportation services is not uniform and is characterized by a diverse level of presence. The result is that entities functioning in the transportation services sector are varied in terms of organization, offer, as well as that of technologies used for the provision of services. Therefore, activities are important, aimed at synchronizing and coordinating functions of all entities, regardless of the transport branch they function in. This is largely carried out by the state, by way of its regulatory function. The state creates the legal-economic framework, to which transportation companies remain subordinate. Another very important task of the state is to set the directions of transportation policy, the fundamental pillar of which is the sustainable development of transportation.

1. Transport service – basic link of a complex logistics service

Transportation as a branch of the economy is characterized by a specific type of production, i.e. transport production. It consists of physical displacement of a passenger and their luggage or freight in time and space. The result of transport production is a transport service, with no tangible nature, and thus the process of its rendering cannot be separated from the process of its consumption. The result is that transportation services similarly to other kinds, cannot be produced in abundance, as they do not exist outside the process of their rendering (Mendyk, 2009, p. 105). As it has already been pointed out, the basic service provided by entities operating within the transport sector is the transport service. It consists of executing transportation tasks for a remuneration, which would result in the displacement of persons and freight. Every transport service requires the support

of additional services, which not only determine performing the transportation, but also ensure its performance under conditions suitable for transport susceptibility of a given freight (Jeszka, 2005, p. 34). For this reason, it is necessary to carry out a number of actions related to preparing the freight and means of transport, and other activities that will ensure an efficient and safe service.

It has already been emphasized that within the land transport services market many service providers operate. These include entities, which operate as contractors performing basic services, and companies, which provide additional services. Apart from these, there also operate service providers, who offer an even more extended range of services, which may be called supplementary (Miklińska, 2012, pp. 49–51). These include:

- services associated with the sales of services, e.g. freight exchange, travel agencies, etc.,
- services accompanying the basic transport service, e.g. hotels, restaurants, insurance, rolling stock repairs, etc.

Including all service types into a single offer, enables the provision of a transport service of the level meeting customer expectations. However, it should be noted that current service recipient preferences oscillate around a full scope of services in relation to their orders, i.e. complementary services. The market's answer to these expectations is a comprehensive logistics service. It is a set of services (basic, additional, and supplementary), purchased from a single provider and closely integrated. Additionally, the set contains services related to warehousing, servicing, IT-finances, etc. It means that, the structure of the concerned comprehensive logistics service shall include three flow groups: physical displacement, information, and monetary resources.

It is important to emphasize that the comprehensive logistics service is not provided by every entity operating on the market. Provision thereof is handled by specialized companies, the so-called logistics operators. These specialize in fulfilling various logistics functions for production and commercial companies, and their aim is to satisfy all needs on part of the service providers. Such a company philosophy regarding customer service stems from the fact that the customer expects the so-called added value, and the diversity and complexity of the offer is significant in the customer's decision-making process, concerning provider selection. Logistics operators, answering market expectations, offer individual service elements (modules) the complete package. On the other hand, in a situation when a single operator satisfies all customer needs regarding logistics services, it means that the latter is provided with what is called a "one stop shopping service". The customer receiving services in this system, is provided with not only a transport service, but also others, e.g. connected with: warehousing, customs, post-warranty services, servicing, assembly, waste management and refunds, and even marketing-financial services. Such a multi-aspect approach and preparedness to customer service indicates that companies operating on the transport services market have indeed evolved over the last decade. As a result of this process, they have adapted to servicing all logistics functions of their service recipients, or a part thereof. A matter of significance in all of this is the

fact that, currently, their offer includes multiple services exceeding the tasks related to providing typical transport services.

2. Service Structure of the Road Transport Subsector

Entities functioning in transport sector provide services with regards to passengers and freight. This stems from the basic criterion of the transport services market division, by what is being displaced. On the other hand, in accordance with the branching criterion, the transport sector can be divided into the following subsectors: road, railway, maritime, inland waterway, and air. In accordance with the division, an analysis shall be conducted hereinbelow, of the service structure of individual subsectors. The first one will be the road transport subsector, which constitutes the largest contractor segment in the Polish transport market. This advantage results not only from transport production volume, but also from sales level, owned production property, and employment level. According to Eurostat data, the Polish road transport sector employs over 430,000 people (data concerns only commercial passenger and freight transport). This amounts ca. 59% of all persons employed in the transport sector (*EU transport in figures*, Eurostat, 2015). The data does not include own transport, nor other supplementary services, connected with the widely-understood logistics. The road transport sector includes multiple entities providing transport services, which are fiercely competitive. Road transport in Poland has a very complex system of legal regulations and public control due to the highest environmental impact amongst the various transport branches, as well as a high accident rate. It should be stressed, however, that the accident level is also influenced by a very active individual motor vehicle usage (Rucińska, 2012, p. 154). Table 1 includes basic information concerning the Polish road transport subsector.

Road transport subsector services are among the most diverse, which results from its universality as well as the support function for other transport branches, mainly in the scope of delivery-dispatch services. From among the segments of services provided by entities operating in the road transport sector, the following should be mentioned (Table 2):

- transport services for freight of varying transport vulnerability in domestic and international carriages in the "door-to-door" system,
- services comprising intermodal and multimodal systems,
- services provided for other transport branches in the scope of terminal services,
- transport of freight requiring a specialized fleet, e.g. liquids, low-temperature, etc.,
- services requiring the use of a fleet equipped with specialized loading-unloading devices,[1]

[1] Road vehicle fleet is considered together with devices, which serve to mechanize loading-unloading activities, shortening not only the time required for these activities, but also limiting the number thereof.

– transportation services for oversize freight,
– courier services.

Table 1. Basic data concerning passenger and freight road transportation in Poland

Specification	2005	2010	2011	2012	2013	2015	Dynamics 2015 : 2005 (%)
Freight transport							
Total transport across all branches (in thousands of tonnes)	1,422,576	1,838,492	1,912,172	1,844,070	1,848,348	1,858,307	30.6
including: road transport	1,079,761	1,551,841	1,596,209	1,548,111	1,553,050	1,547,883	43.4
Road transport – share in transportation (%)	76	84.4	83.5	84	84	83	9.2
Transport performance (in million tkm)	119,740	214,204	218,888	2,333,310	247,594	262,860	119.5
Passenger transport							
Total transport across all branches (in thousands of passengers)	1,046,930	838,024	807,141	779,797	739,556	709,698	–32.2
Road transport in total (in thousands of passengers)*	782,025	569,652	534,885	497,288	459,947	431,516	–44.8
Carriages (in million. of passenger-kilometres)	29,314	21,600	20,651	20,012	20,039	21,450	–26.8
Road transport – share in transportation (%)	74.7	68.0	66.3	63.8	62.2	60.8	–18.6

* Sans carriages with public and individual transport.

Source: own study on the basis of: *Transport – wyniki…* (2015), pp. 535–539.

Table 2. Road transport services segments

Services Segment	Task-based characteristics
1	2
Freight transportation services Of a diverse transport vulnerability	freight transport of both unified cargo units, and requiring adaptation of vehicle bodies to the cargo phys-chemical properties, and using specialized vehicles, e.g. refrigerator, tanker, etc.
Services comprising intermodal and of multimodal systems	freight transport in which road vehicles transport cargo only on specific routes, which may not be executed via another means of transport
Services provided for other transport branches in the scope of terminal services	services by road vehicle transport are most often delivery-dispatch services i.e. from the sender to the terminal and from the terminal to the recipient, and services within and without the terminal, mainly containers
Freight transportation services requiring a specialized fleet	transport of cargo with a narrow transport vulnerability with a specialized fleet, adapted for specific cargo types, e.g. transport of liquid, easily spoiled cargo (cooled), livestock, etc.

1	2
Services requiring the use of a fleet equipped with specialized loading-unloading devices	transport of heavy, excessive loads, etc.
Courier services	these are characterized by the possibly shortest, guaranteed time of deliveries, executed in the "door to door" system, ensuring the possibility of tracking service execution, and the pre-arranged date of delivery

Source: prepared by the author.

The task-based characteristics of the services indicate that the scope thereof results from two factors. The first are the needs and expectations of service recipients, it is a factor affecting mainly the transport organization process. The second, very important from the perspective of using the suitable transportation technology, is the transport vulnerability of a given cargo.

On the other hand, with regards to passenger transport, the Polish transportation sector specializes in providing services in the following segments (Rucińska, 2012, p. 159):

– international coach and bus carriages,
– long-haul domestic coach and bus carriages,
– local and regional (including intra-agglomeration, urban and rural) bus carriages,
– individual carriages with "taxis".

International coach and bus carriages are part of the services provided by companies which usually offer a wide range of services concerning organized transport. Such carriages are quite popular; however, coach connections are carried out primarily to other European countries. International coach carriages exist to service tourist excursions as regular or shuttled connections. International coach bus connections service more than 2.7 mln passengers every year. The dynamics of this segment of services has in the last decade, slightly slowed, and in 2015 the number of entrepreneurs performing international passenger carriages decreased by 0.8%, as compared to previous years. On the other hand, the bus fleet has increased in numbers by ca. 8%, with a simultaneous improvement in the condition thereof. The international fleet operates clearly more modern vehicles. Currently, the percentage meeting the Euro IV and Euro V standards (i.e. no older than 7 years) is more than 19% (*Transport – wyniki*…, 2015). It is worth emphasizing that Polish carriers purchase modern fleets in order to ensure high quality transport services but mainly, to guarantee safety.

Long-haul domestic coach and bus carriages comprise a segment of services, whose task is directly connecting towns a significant distance from one another. Coach and bus carriages in the recent two years have also decreased. It is this particular segment of the services, which has been most heavily affected by the growth in level of individual motorization. Such carriages have significantly decreased, by ca. 65%. The stated reason is a feedback loop between the demand for such carriages, and the profitability thereof, which results in limiting the frequency of the connections. This situation directly affects not only the size of the carriages, but also the modernity of the fleet. Vehicles in possession

of carriers providing domestic carriage services, are amongst the oldest of the vehicle park registered in Poland. More than 45% of vehicles is at least 20 years old, and only 4% of the bus park is less than 2 years old (*Transport pod lupą*…, 2015).

The Polish segment of local and regional coach and bus carriages is strictly dependent on the economic situation of local governments, and in particular on the policy regarding public transport implemented thereby. Since local and regional carriages include agglomeration and urban transport, the demand therefor depends on the economic-spatial specificity of a given region. In the analyzed segment, in addition to urban transport, the following services are provided: transport to airports, employee transport, and the occasional passenger carriages. On the other hand, individual carriages with "taxis" comprise a segment of the services, which is characterized by carriages executed on individual customer orders. In this segment, services are provided both by transport taxi companies. These services are characterized by transportation in the "door to door" system, where passengers are collected from and transported to the place specified thereby.

To sum up, it should be pointed out that the broad scope of the services mentioned, confirms that road transport remains an integral participant of every transport market. In Poland, its share in land freight transport is dominant, and this tendency is analogous to a situation occurring in most EU member states.

3. Structure of the Railway Transport Subsector Services

The railway transport subsector is characterized by the fact that the transport companies operating therein make active or passive use of the infrastructure and the rolling stock. This means that cargo and passenger transport processes executed thereby are strictly dependant on the capacity of a given railway line, and rolling stock availability (Engelhardt, 2014, p. 47). Therefore, the railway transport market structure is determined by the carriage technology, as the entry and operational barriers for that market remain high. This is connected with the need of incurring significant investment outlays, possessing appropriate technologies, and meeting the formal-legal requirements, as railway company activity is licensed. Furthermore, organizing and executing the carriage process by railway transport is more complex than in other transportation branches. This results from the fact that the basic means of transport, i.e. rail cars, are not equipped with their own drive, and their displacement necessitates adhering to strict principles. It is especially visible in freight displacement, where individual locations of cargo receipt from single cars or groups thereof, do not always overlap with the entire route of running trains. Such situations require that transport be conducted with the use of several trains. Passenger transport is less complicated, as in this case, the passenger plays an active role in the transportation process. In a result of performing activities comprising the transportation process, a service is created, which is rendered by the carrier to the recipient. Table 3 includes basic data illustrating the volume of railway carriages in Poland.

Freight carriages are characterized by the fact that due to significant load capacity of the cars, it is possible to transport three times the mass per railway unit, than in road transport units. The result is that railway transport is used as the leading transport branch for raw material deliveries to companies performing large-scale operations (power plants, sea ports, etc.).

Table 3. Basic data concerning freight and passenger transportation by rail in Poland

Specification	2005	2010	2011	2012	2013	2015	Dynamics 2015 : 2005 (%)
Freight Transport							
Total transport across all branches (in thousands of tonnes)	1,422,576	1,838,492	1,912,172	1,844,070	1,848,348	1,858,307	30.60
including: railway transport	269,553	234,568	248,606	230,878	232,596	227,820	–15.50
Railway transport – share in total transport (%)	18.9	12.8	13	12.5	12.6	12.3	–34.90
Transport performance (in million tkm)	49,972	48,795	53,746	48,903	50,881	50,073	0.20
Passenger transport							
Total carriages via all transportation branches (in thousands of passengers), including	1,046.930	838,024	807,141	779,797	739,556	709,698	–32.20
Total railway carriages (in thousands of passengers)	258,019	261,298	263,595	273,183	269,873	268,204	3.95
Carriages (in millions of passenger kilometers)	18,155.1	17,918	1,8176.3	17,826.4	16,796.8	16,014.9	–11.80
Railway transport – share in carriages (%)	24.6	31.2	32.7	35.03	36.5	37.8	53.70

Source: own study on the basis of: *Transport – wyniki…* (2015), pp. 96, 120.

The table was used to specify freight and passenger railway carriages in recent years. It demonstrates a visible decrease in carriages, however, since 2011, this trend has been slightly slowed and stabilized. In 2015, railway transport displaced 12.3% of the total freight mass. This means that it was characterized by a similar carriage dynamics as in previous years, with only the transport performance ratio increasing slightly. On the other hand, the passenger segment has, in the analyzed years, been noting a decrease in the railway carriages. However, changes in infrastructure and the rolling stock, have influenced the change of the trend, the data in the table indicates that since 2010, this situation has been improved.

Railway transport executes freight carriages of various cargo groups, therefore we can distinguish the following segments of the services (Burnewicz, 2012, p. 183):

– block-train carriages,

– intermodal carriages,
– single car carriages.

In the block-train carriages, the contracting party covers the costs for the loading capacity of the entire train. Therefore, the type structure of cargo transported in this system is dominated by bulk cargo, including: solid fuels, liquid fuels, chemical products, construction materials, etc. The process of organizing these carriages is not complicated, as they are characterized by the following characteristics:

– a single place of cargo dispatch and delivery,
– a homogeneous cargo,
– the cargo fills the entire, or almost the entire load capacity of the railway means of transport.

Block train carriages are characterized by the speed and simplified service procedures, as the shipment is transported directly from the initial station, to the place of destination, without the need to detach and attach cars during the course. The number of cars comprising a train, is adjusted individually for each order, however, it is usually sought to take advantage of railway transport, i.e. high transport capacity. Therefore, single car shipments are grouped into block-train shipments, so as to achieve the effect of scale, particularly when transport is conducted on large distances.

Intermodal transportation is characterized by the principle of transporting cargo in a single vehicle or cargo unit, using two or more transport branches. In intermodal carriages, cargo is transported in intermodal units only (containers, replaceable bodies, semi-trailers etc.), with railway transport usually making use of containers. The advantage of intermodal transport is the lack of the need of cargo transshipment when changing the means of transport, as the transshipment is performed on the entire unit, e.g. the container, which improves and accelerates the transportation process. In Poland, intermodal transportation is not yet on the expected level in total transport, however, recent years show a certain change in this trend. The main factor fostering the level increase in intermodal transportation, is the improvement in the railway infrastructure. This applies not only to renovations and modernizations of railway lines, but, first and foremost, investments in the rolling stock potential and transshipment terminals (Filina-Dawidowicz, Kaup, Wiktorowska-Jasik, 2014, pp. 111–117). These investments also apply to the infrastructure, allowing not only efficient transshipments, but also storage, warehousing, and transshipment within container yards and terminals. In Poland, the leading carriers in this segment are: PKP CARGO, DB Schenker Rail Polska, Lotos Kolej and others. In 2015 all of them noted a growth in intermodal carriages. This was ca. 11% according to mass, and by 10.9% according to transport activity, in relation to previous years. This tendency has remained at a similar level in the first quarters of 2016. Carriages between Poland and Germany, and Poland and Slovakia are the greatest share in railway routes. On the other hand, a very low share is had by intermodal railway connections between Poland Eastern and Southern Europe, which proves, i.a., the weak use therefore of the terminal infrastructure located within the Baltic Sea area (www.utk.gov.pl).

Single car carriages may apply to both bulk and general cargo goods, but the latter are most common. A feature of these carriages is the transportation of cargo in single cars, or small groups thereof, and therefore they are also known as dispersed carriages. Single car carriages are usually performed between such points of dispatch and delivery, for which the volume of the cargo stream makes it impossible to perform block train carriages (Drewnowski, 2012, p. 74). From the organizational perspective, this carriage form is more complex than the others, both organizationally and technologically. It results mostly from the specificity of the cargo types submitted for transportation, which may be diverse type-wise spatially, and from the dispersion of the points of dispatch and delivery. Another feature of this services segment is the rigid timetable for the trains, especially those running between marshalling yards. Currently single car carriages have the worst perspective for development throughout the freight segment of railway services. This results from difficulties in organizing and executing these services, and the high degree of dispersion of points of dispatch necessitates the need for a complex transport infrastructure (mainly manoeuvring yards), which is necessary for grouping cars. For this reason, in Poland, this segment of services is the least resistant to road transport competition. On the other hand, in railway passenger carriages, the following service segments are distinguished (Table 4):

- inter-agglomeration carriages,
- inter-regional carriages,
- regional carriages,
- agglomeration carriages.

The inter-agglomeration carriages segment comprises a very significant element of the transport system. In Poland, only part of the carriages belongs to this services segment, as there are restrictions mainly on part of the infrastructure. However, as a result of the executed investments, inter-agglomeration carriages may become a rapidly developing segment of railways passenger carriages, similarly to high speed railways. According to the basic assumptions of the Polish transportation policy, construction is supposed to be carried out, of inter-agglomeration connections, conformant with the requirements of the transport market. It is expected that they will become an alternative for travels via other transport branches on distances up to 600 km. Currently in Poland, services provided in this segment include only part of EIC (EuroInnterCity) connections, performed by the PKP Intercity company, which handles long-distance, fast, and express passenger transport. It is worth emphasizing that, in recent years, December 2014 to be exact, first inter-agglomeration connections have been launched, preformed with high-speed – Pendolino trains.

Inter-regional carriages are a very important element in the national passenger carriages system at medium distances. For this reason, the carriages segment is subsidized by the Ministry competent for transport (*Master*…, 2008). In Poland these carriages are handled by local administration company Przewozy Regionalne (Regional Carriages), and partially by the PKP Intercity company.

Table 4. Service Segments in Passenger Railway Carriages

Services Segment	Task-based characteristics
Inter-agglomeration carriages	passenger carriages: – in a relatively short time, – via direct connections, – with a high comfort of travel and additional services. Inter-agglomeration carriages are characterized by a relatively high frequency of connections between the largest agglomerations
Inter-regional carriages	connections between important urban centers separated by large distances; they are characterized by high spatial availability and a large number of intermediate stops, and a lower cost of travel in comparison with higher-category trains, for which reason a lower standard of travel may be offered
Regional carriages	the segment of services that are characterized by the largest share in the railway passenger carriages market; they are diverse in terms of the demand structure, as they include handling both large, regular passenger flows in suburban relations, and transport on secondary lines, for which the demand is significantly lower
Agglomeration carriages	their task is handling passenger flows within a given metropolitan area; they are characterized by: – high frequency of train courses along a given route, – high density of intermediate stops, and short distances between them, – large streams and frequent replacement of travelers, – high commercial speed, – cyclical timetable, – the use of specialized, mainly high-capacity rolling stock, – disposal and organization of hubs integrating these carriages with the other elements of the municipal transport system

Source: prepared by the author.

Regional carriages is a segment of services, performance of which remains the obligation of public services (in accordance with Regulation 13/20007 if the Council of Ministers of the Republic of Poland). The Provision of services in the regional carriages sector is handled by the company Przewozy Regionalne (Regional Carriages), a shareholder of which (51%) is the Agencja Rozwoju Przemysłu (Industry Development Agency), with the remaining shares at the disposal of the 16 voivodeship authorities, in accordance with the administration division of Poland (Żurkowski, 2013, p. 576).

Agglomeration carriages are often defined as suburban, as they are characterized by handling passenger flows within a given metropolitan area. These carriages are firmly supported by the regional/voivodeship authorities, as they are the development stimulating factor, and, first of all, allow for a reduction of transportation problems. This applies particularly to large cities experiencing difficulties connected with the impossibility of providing adequate road infrastructure. In addition, agglomeration carriages are consistent with the sustainable transport development policy, and provide mobility to the agglomeration inhabitants. They are mainly used to handle daily commutes to work, school etc. The urban railway system is usually limited to the area of a given agglomeration, and carriages are performed in a radius of several dozen km from the center thereof. It should be emphasized that agglomeration carriages should be integrated with public transport

system and managed jointly therewith. In Poland, examples of agglomerations with separate agglomerations carriages systems are: Warszawa, Kraków, Trójmiasto (Gdańsk, Gdynia, Sopot) and the widely understood Silesian Agglomeration. It is worth emphasizing that the city being well on its way in establishing an agglomeration railway (also, metropolitan) is Szczecin.

Conclusion

The Polish transport sector is diverse both spatially and service-wise. The economic entities functioning therein offer a very broad scope of services. These have, over the past decade, evolved significantly towards complex logistics services. This trend is analogous in all transport subsectors. In the general structure of the sector, of most importance are services provided by the road transport subsector. The share of this subsector in cargo transports has grown exponentially over the analyzed period. Currently, it comprises nearly 80% of carriages total. This situation is inconsistent with the sustainable transport development policy, therefore at the national level; actions are taken, aimed at changing this tendency. It is necessary to spread the volume of carriages to the remaining branches of transport and strengthen activities for the benefit of integrated transport. On the other hand, with regards to passenger carriages, the situation is specific, as other than city transport, other forms of collective transportation of persons experience a decrease, particularly in the scope of domestic carriages. Furthermore, services structure of the railway transport subsector is characterized by reverse trend than road transport. In this subsector, a decrease is recorded in the segment of cargo carriages, while the segment of passenger carriages increases.

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USŁUGI SEKTORA TRANSPORTU LĄDOWEGO – ANALIZA STRUKTURY I DYNAMIKI ROZWOJU

Słowa kluczowe: transport lądowy, usługi transportowe, kompleksowa usługa logistyczna, rozwój transportu

Streszczenie: Sektor transportu to zróżnicowana struktura, której zadaniem jest zaspokajanie zgłaszanych przez gospodarkę i społeczeństwo potrzeb przemieszczania. Celem artykułu jest przeanalizowanie polskiego sektora transportu lądowego pod kątem identyfikacji segmentów usług, zmian w ofercie usługowej oraz określenie dynamiki rozwoju. Dla realizacji tego zadania przybliżono podstawową strukturę gałęziową sektora transportu, w ramach której wyodrębniono podsektory. Ponadto wskazano na charakterystyczne rodzaje i cechy usług świadczonych przez poszczególne podsektory oraz sporządzono ich charakterystykę zadaniową. W artykule wykonano także analizę dotyczącą określenia wielkości przewozów realizowanych w ramach podsektora transportu lądowego na przestrzeni ostatnich dziesięciu lat. Problematyka artykułu oraz podjęte w nim rozważania potwierdzają potrzebę wnikliwego monitorowania zmian, jakie zachodzą we wszystkich podsystemach transportu. Zasadniczą wartością artykułu jest wskazanie głównych segmentów usług polskiego sektora transportu lądowego.

Cytowanie

Wiktorowska-Jasik, A. (2017). Land transport services – service structure and development dynamics analysis. *Ekonomiczne Problemy Usług*, *3* (128), 93–105. DOI: 10.18276/epu.2017.128-07.