ZESZYTY NAUKOWE POLITECHNIKI POZNAŃSKIEJ
Nr 92 Organizacja i Zarządzanie 2025

Mateusz SZAWELSKI[1]

THE IMPACT OF GLOBAL AND LOCAL CRISES ON THE FUNCTIONING OF ROAD TRANSPORT IN POLAND

DOI: 10.21008/j.0239-9415.2025.092.11

Polish road transport is number one in Europe, accounting for over 20% of freight transport on the old continent. It is also directly responsible for 6% of Poland's GDP. However, since the outbreak of the Covid-19 pandemic, a huge crisis has been noticeable, which, combined with many smaller ones, has escalated to the most serious in over 20 years. The aim of this paper is to discuss the key reasons for the crisis in the Polish road transport industry and to show the actual consequences of these problems. The study was conducted in a descriptive form using data analysis from reports by major road transport organizations, a review of scientific literature, observation and analysis of real cases. It was found that the impact on this industry in a single period of challenges related to the pandemic, economic, war in Ukraine, shortage of drivers, and EU policy. The emergence of so many sudden changes and unusual situations forced many companies to reduce their fleets and, in the worst cases, led to restructuring or bankruptcy. As a result, the study showed that these situations were significantly reflected in the crisis that affected the Polish road transport industry. The conclusion was that carriers were forced to adapt to the current situation, which was referred to as their new reality. It was also established that a responsible approach is key in this situation, which must be focused on flexible action and adaptation to the current conditions imposed by global and local crises.

Keywords: crisis, road transport, transport, carrier, pandemic, Mobility Package, war, climate neutrality, costs, greenhouse gas emissions

[1] Poznan School of Logistics, SNKL CORLOG. ORCID: 0009-0008-9332-7630.

1. INTRODUCTION

Road transport is currently one of the most popular modes of transport. Every second, someone is traveling on the road in a road vehicle. According to data contained in the Polish Central Statistical Office (GUS) report "Transport drogowy w Polsce w latach 2022 i 2023" at the end of 2023, the public road network in Poland covered nearly 430,000 kilometres, with road traffic amounting to nearly 260 billion vehicle-kilometres (GUS, 2024). These data are reflected in the share of road transport, as 84% of all goods in Poland are transported by land. This gives a total transported weight of all cargo exceeding 1,500 million tons (Górczyńska et al., 2018). The size of these figures is reflected in Poland's GDP, as road transport generates around 6% of gross domestic product; however, the Transport Logistics Poland Employers' Association (TLP) and the Association of International Road Transport Carriers (ZMPD) indicate that it also contributes 51% of total GDP. Despite road transport's substantial positive impact on the Polish economy and the statistics supporting the choice of this transport solution, in recent years, the industry has faced many challenges that have effectively slowed down the expansion of road transport. These problems result from both global and local crises, starting with the COVID-19 pandemic, which disrupted the market and destabilized vulnerable supply chains, through the war in the east, European Union regulations, and the energy crisis, to the shortage of qualified drivers (PhD Maciej Stajniak for Bankier.pl, 2024). The topicality of this problem and its real significance underpin the selection of the topic, since knowledge of current industry crises and their effects can form the basis for informed business management. A responsible approach is key, with a strategy focused on flexible action and adaptation to the current conditions imposed by global and local crises. This article presents the main causes of the crisis affecting Polish road transport companies and describes the consequences of these challenges.

2. METHODOLOGY

The study focuses on analysing the causes of the crisis affecting road transport companies in Poland. The convergence of many global and local problems in a single period has had a huge impact on the operations of transport companies. The study aims to present this impact by identifying the actual causes and effects encountered by carriers, and focuses on a detailed examination of the main causes of one of the biggest crises in this industry. The research question is: "What impact have global and local crises had on the functioning of Polish companies providing services in the road transport sector?" The work is intended to study and identify as effectively as possible the effects of those crises that have had the strongest impact on the operation of this sector. To clarify the path to be followed in pursuit of results, the main research problem has been divided into specific questions.

– How important is road transport for the Polish economy?
– What factors contributed to the crisis?
– What consequences may arise from the challenges facing road transport operators?

These detailed research questions allow for a thorough understanding of various aspects of the problem, as well as exploring the main research objective concerning the impact of global and local crises on how road transport companies in Poland function.

The methodology used involves analysing data contained in reports published by major road transport organisations, reviewing the scientific literature, observing and analysing real-life cases, and consulting industry experts, whose selection was dictated by the situation facing the industry during the period under review. The facts set out below were those most frequently cited by road transport experts in reports and analyses, and had the greatest impact on the emerging crises. Every effort was made to use the most up-to-date data available, which provided the most accurate description of the situations and analysed their consequences.

3. THE ROLE OF ROAD TRANSPORT IN THE POLISH ECONOMY

Road transport and the transport of goods by road, in particular, is one of the key sectors of national economies, as well as being a significant component of European trade (Hilal, 2008). In Poland, in 2023, its income from the transport of goods alone amounted to PLN 225 billion. The rising demand for road transport is mainly due to the rapid growth of the economy (exceeding the EU average), the industry's large share of in GDP and the export of goods and transport services provided to foreign contractors (TLP Report, 2024, Report 'Road transport in Poland 2024/2025'). Compared to other European countries, Poland's road transport sector can boast many areas in which it dominates the rest of the EU. Polish carriers are leaders in international road transport, as evidenced by data published by Eurostat in the report 'Key figures on European transport – 2023 edition', shown in the chart below (fig. 1), which shows the transport of goods by road, calculated in millions of tonne-kilometres [*Tonne-kilometre – a unit of calculation resulting from multiplying the weight transported (in tonnes) by the number of kilometres travelled* (Polish Language Dictionary, Def. *Tonokilometr*)].

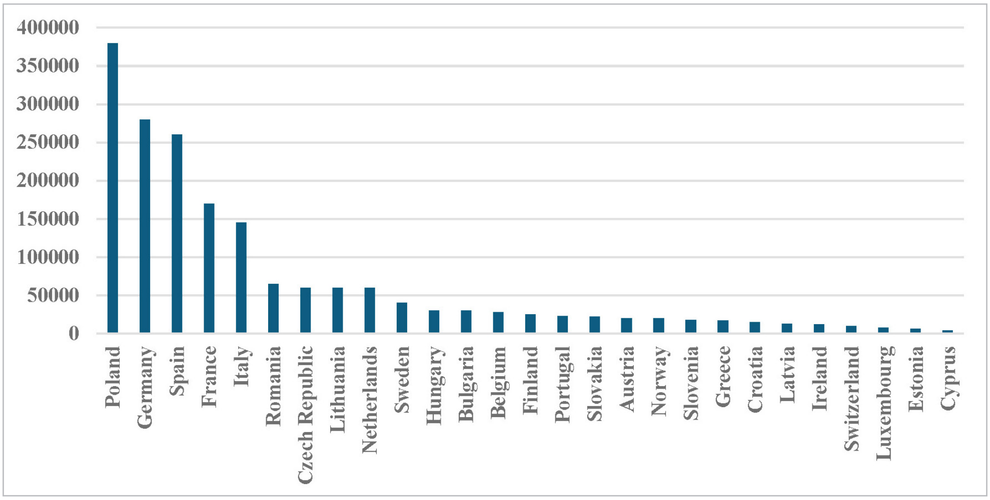

Fig. 1. Comparison of the share of road freight transport based on tonne-kilometres by country of vehicle registration in 2023 (own study based on the report 'Key figures on European transport – 2023 edition' (Eurostat))

Data published by Eurostat clearly indicates the dominance of vehicles registered in Poland on the European market. As the chart above shows, only vehicles from Germany, Spain and Poland can boast a share of over 10% in road freight transport, but only Poland has exceeded the 20% barrier (PITD Editorial Office, 2024). This data is reflected in the number of lorries registered in a given country, as on average every fifth lorry travelling in Europe has Polish number plates (PhD Maciej Stajniak for Bankier.pl, 2024).

The report 'Road transport in Poland 2024/2025' shows that Poland may also rank high in terms of the number of road transport companies, where it stands second among EU countries, just behind Spain. The difference between the two countries in this respect is minimal, since it amounts to only 300 companies, whereas Italy, which ranks third, is nearly 50,000 companies behind Poland (TLP Report, 2024, Report 'Road transport in Poland 2024/2025'). Due to such a large number of companies, the transport industry in Poland employs nearly one million people and contributes PLN 16 billion to the state budget through various taxes and fees. Despite the significant size of these figures in the European ranking, the Polish road transport industry is currently facing many challenges that effectively hinder the functioning of companies in this sector and hamper its further expansion, which is shown in the subsequent parts of the article.

4. CRISES AFFECTING POLISH ROAD TRANSPORT IN RECENT YEARS

Currently, companies in Poland's road transport sector are facing a significant crisis, as evidenced by the opinions of industry experts and reports. They show that the problems faced by Polish carrier companies in many cases result in a decline in revenue compared to previous years and, in the worst case, loss of financial solvency. The beginning of the intensified crisis in road transport coincided with the onset of the COVID-19 pandemic. Subsequently, the transport industry was hit by the economic slowdown in Europe and the war in Ukraine. EU regulations aimed at promoting environmentally friendly activities also pose challenges for carriers. According to PhD Maciej Stajniak, a specialist in transport management in enterprises and vice-president of the Poznań School of Logistics, these regulations significantly increase the operating costs of road transport companies (PhD Maciej Stajniak for Bankier.pl, 2024). It is also intensified by the challenges associated with the Mobility Package, but particularly by the shortage of professional drivers. All of these global and local crises have a negative impact on Polish road transport companies.

4.1. COVID-19

At the end of 2019, the first cases of the previously unknown, deadly SARS-CoV-2 virus began to appear, which over time began to infect more and more people. The rapid increase in the number of coronavirus infections and the lack of an antidote that would effectively reduce their number resulted in a global lockdown, border closures and travel bans. As the number of infected people grew and new restrictions were introduced, there was a noticeable decline in mobility at major transit points (Huang et al., 2020). For example, comparing March to January 2020, there was a 70% drop in activity in places such as public transport stations, motorway service areas and shops (Pomykała, 2021). Restrictions on the movement of people have had a significant impact on the transport sector and supply chains. Sudden drops in demand, production shutdowns, and the resulting decline in cargo supply, as well as border controls, caused the first difficulties for carriers. This also resulted in a reduction in the number of kilometres travelled by transport companies' vehicles (Łęcka, Suproń, 2021). However, the greatest challenge during this period originated in the energy sector. The COVID-19 pandemic caused the greatest shock ever experienced by the sector. An analysis by Ghazanfari indicates that in the early stages of the pandemic (between 2019 and 2020) the rising number of pandemic-related deaths led to a fall in fuel prices (Ghazanfari, 2020). The following years, however, caused a significant rise in fuel prices. The European Central Bank states that this was due to the reduced risk level and the easing of lockdowns, which in turn stimulated demand for energy. They also state that the price rises were caused by supply-side issues with oil itself, and later, in early 2022, by the Russian invasion of Ukraine. They point out that oil prices at that time were significantly higher than pre-pandemic levels (European Central Bank, 2022).

4.2. Economic slowdown

Recent years have not been favourable for the economy. High inflation, rising prices, supply shocks in raw materials and unemployment have not had a positive impact on the market. This has been most noticeable since the outbreak of the pandemic (Notteboom, Pallis, Rodrigue, 2021). The year 2020 saw a 2.15% decline in GDP compared to the previous year, the worst result for the Polish economy in the history of the available data (Wojciech Paczos, Napokolenia.pl, 2024). While subsequent years saw a post-pandemic rebound, 2023 once again brought disappointing results. Gross domestic product growth was only 0.2% for the whole year, which was the weakest GDP growth in the history of Poland's membership of the European Union (MR, Business Insider, 2024). Such economic turmoil has a significant impact on the market. The decline in consumption and industry is reflected in falling demand for transport services, which results in lower profits for companies. However, economic instability also driven up operating costs, specifically through high inflation and increases in fuel prices. Fuel is, after all, the main complementary good of road transport and one of the most significant costs for companies operating in the transport sector. High interest rates do not help in this situation, as they also increase costs and slow down investment in the transport industry, affecting the costs of loans, leases and rentals (Iwona Konieczna, Prilo.com, 2023).

4.3. War on the eastern border (Ukraine–Russia)

Military conflicts always have a major impact on geopolitical and economic aspects, as well as trade. Ciuriak (2022) points out that Russia's war with Ukraine marks a turning point for the world, since it has profound geopolitical consequences and enormous economic costs amounting to trillions of dollars. However, this invasion has also contributed directly to the current crisis facing transport companies. Although Poland is not a direct party to the current hostilities, due to its proximity to the border it is directly impacted by on the hostilities. Its effect on the transport industry is particularly noticeable for companies that were mainly focused on transport to eastern destinations. As Stanik points out, overnight, around 20,000 lorries that used to transport goods between Poland and Russia on a daily basis suddenly came to a stop, with most carriers forced to suspend their market activities. Stanik also emphasises the negative impact of abolishing the obligation to obtain transport permits for companies from Ukraine. This resulted in unequal rules and criteria for access for transport companies, which was noticeable in the statistics on bilateral transport, 92% of which is carried out by Ukrainian carriers, with only 8% belonging to Polish companies. Preferential conditions for Poland's eastern neighbours to enter the European market, deregulation and lower operating costs have led to strikes by Polish carriers and blockades at border crossings with Ukraine (PhD Maciej Stajniak for Bankier.pl, 2024). In addition to creating an unfair competitive environment, the conflict also affected the supply of raw materials. The introduction of sanctions on Russian goods created many challenges related to their procurement. The primary problem associated with import restrictions for the transport industry was crude oil, of which Russia is the world's second largest exporter (Fjaertoft, Overland, 2015). A particular change was the commitment expressed by Germany and Poland to end imports of Russian oil via the Druzhba pipeline by the end of 2022, which meant moving away from Ural crude oil (Babina et al., 2023). The sudden need to find new suppliers of this raw material after the imposition of sanctions destabilised the petrochemical industry and, as a consequence, drove up fuel prices, which again fed into higher operating costs for transport companies, creating another challenge for carriers (Sadłowski et al., 2025; 4mobility.pl, 2025).

4.4. European regulations

The European Union strives for climate neutrality among its member states through its decisions and regulations. The road transport industry is often mentioned negatively in this regard due to its characteristics, more specifically, its emissions of carbon dioxide and other harmful gases (Albuquerque et al., 2020). This is reflected in transport in Europe accounting for around 25% of total greenhouse gas emissions, of which road transport is responsible for around 70% (Becker et al., 2012). Heavy transport, i.e. lorries and buses, is often cited in this context. Despite accounting for only 2% of all vehicles, they generate over a quarter of all road transport emissions (Joanna Spiller, Teraz-srodowisko.pl, 2022). Consequently, in order to achieve climate neutrality in the transport sector, the European Commission is introducing various restrictions in this sector through the European Green Deal (EGD). This is being done through actions such as the 'Fit for 55' package, which focuses in particular on reducing emissions through ambitious targets: a 55% reduction by 2030 (compared to the 1990 baseline) and becoming the first climate-neutral continent by 2050 (Erbach, Jensen, 2022; Ovaere, Proost, 2022). It introduces a ban on the sale of fossil fuel vehicles from 2035 (Kos et al., 2022), while promoting the share of rail and maritime transport in exchange for road transport. It also supports the use of 'green' fuels (in particular electricity and hydrogen) and the digitisation of transport. The EGD also introduces the requirement to report environmental issues in ESG in accordance with the CSRD directive. In addition, at the end of 2024, the EU Council approved the Euro 7 regulation, which relates to emission limits for road vehicles and the durability of batteries in vehicles (European Commission, 2021). An extension of the Emissions Trading System (ETS) in the form of ETS II will also be introduced. It will come into force in 2027 (with the possibility of being postponed to 2028) and will apply to fees for fossil fuel vehicles (Kos, 2024). As emphasised by Raluca Marian, representative of the International Road Transport

Union, ETS II will function as a penalty for operators who do not switch to zero--emission drives (Robert Przybylski, Logistyka RP, 2022). In addition, with the EU Eurovignette Directive, all member states are required to implement road charges based on CO_2 emissions. For example, in Germany, on 1 December 2023, the provisions of the directive came into force, resulting in an 86% increase in the existing road charge rate (Patrycja Hamielec, Timocom, 2024).

4.5. Mobility package

The mobility package, a set of regulations and provisions proposed by the European Parliament, is intended to improve the quality of transport services and the working conditions and wages of drivers, as well as the rules of transit transport. This is the first significant change in road transport regulations since Poland joined the European Union (Suproń, 2020). The first changes were introduced in August 2020, and further ones are planned for the period up to 2026. These concern such aspects as drivers' working time, extended storage of tachograph data, cabotage and combined transport, the delegation of drivers, subsidies and the replacement of tachographs (ZMPD, 2020). The Mobility Package was intended to improve the transport, shipping and logistics (TSL) industry; however, some of its provisions significantly complicated the work of certain transport companies and forced them to change their existing business models. The costs of the new regulations often proved burdensome rather than making it easier for carriers to do business, which was compounded by their timing, coinciding with other crises (Waśkiewicz et al., 2018). In addition to the financial impact of introducing the set of regulations, their interpretation and understanding also became problematic. The ambiguities are worrying for road carriers, if only because of the high penalties for non-compliance with the legal provisions, for which they would be responsible even if their actions were not intentional (Maciej Maroszyk, Logistyka.net.pl, 2023).

4.6. Shortage of professional drivers

The shortage of professional drivers is not only a problem for transport companies but also a serious issue for the economy. In the road transport industry, this is one of the main problems, as it is directly related to the functioning of companies. This is also confirmed by a survey conducted by Olejniczak, Dębicka (2025), which revealed the lack of drivers to be one of the key challenges facing the industry. The shortage of labour in the transport sector is a global problem. According to data from the International Road Transport Union (IRU) from 2023, there is a shortage of nearly 3 million drivers worldwide and nearly 50% of carriers report significant recruitment problems (62% in Europe) (Michał Pakulniewicz, Trans.info, 2023). According to data, Poland is facing a shortage of approximately 80,000 drivers, which is the highest figure among the European countries surveyed. However, the actual shortage may be even greater, amounting to nearly 150,000 vacancies, which is highlighted by the fact that in 2022, 70% of carriers in Poland reported problems hiring drivers. This crisis continues to grow, as indicated by the IRU forecast showing how the number of unfilled positions is expected to exceed 6.5 million globally by 2028. As indicated in articles by the Polish Road Transport Institute (PITD) and money.pl, the primary factor contributing to the shortage of professional drivers in Poland is demographics. An ageing population and the resulting lack of generational replacement poses a challenge in many industries. However, the insufficient number of foreigners employed in this position and the decline in the number of drivers from Ukraine are also mentioned: in 2023, the number of active driver certificates from this country decreased by 30% compared to 2022. The low prestige of the profession and the lack of interest in it among young people are also cited as reasons for the employment crisis. This is certainly influenced by the prohibitive cost of obtaining professional qualifications, which stands at almost twice the average salary in Poland. The inadequate social infrastructure for drivers, which in many cases do not have clean water, showers or toilets, likewise acts as a disincentive. The limited availability of parking spaces and vehicle service areas is also emphasised. The PITD article further addresses the issue of demanding working conditions, where, according to their 2024 research, stress was the most important factor in drivers' 'dislike' of their work. The low representation of women was also highlighted; according to the IRU, women account for only 2% of all people employed as professional drivers in Poland (Bartłomiej Drążkiewicz, PITD, 2024). This problem is also confirmed by a survey of professional drivers conducted by Ji-Hyland and Allen (2020), which indicated that factors related to the working conditions of professional drivers contribute directly to the shortage of prospective employees in this profession.

5. THE IMPACT OF CRISES ON THE POLISH ROAD TRANSPORT INDUSTRY

'This is the worst crisis in the road transport sector in over 20 years. A crisis that has forced many companies to reduce their fleets and staff, and in extreme cases, to restructure, liquidate or go bankrupt', said Maciej Wroński, president of the TLP Employers' Association, during a press conference on the report 'Road Transport in Poland 2024/2025' (Polish Press Agency (PAP), 2025). This sentence perfectly describes the situation in which Polish carriers have found themselves in recent years. The convergence of many challenges has effectively put a wall in the way of many business owners. According to the BIG Debtors Register, the sector's financial problems amount to PLN 3.2 billion and affect 37,000 entities (Adam Woźniak, Rzeczpospolita, 2024). In the first quarter of 2024 alone, 120 transport companies declared bankruptcy, while 1,400 companies were in the process of restructuring (Marcin Szmandra, Tachospeed, 2024).

The pandemic brought significant fluctuations in fuel prices, which particularly affected transport operators. The drop in prices at the outbreak of the pandemic and the sudden increase during it caused considerable trouble in financial results and significantly increased transport companies' costs due to their percentage usage of diesel. The chart below shows how the price of diesel fuel changed between 2017 and 2025 and illustrates how radically its average prices fluctuated during this period (fig. 2).

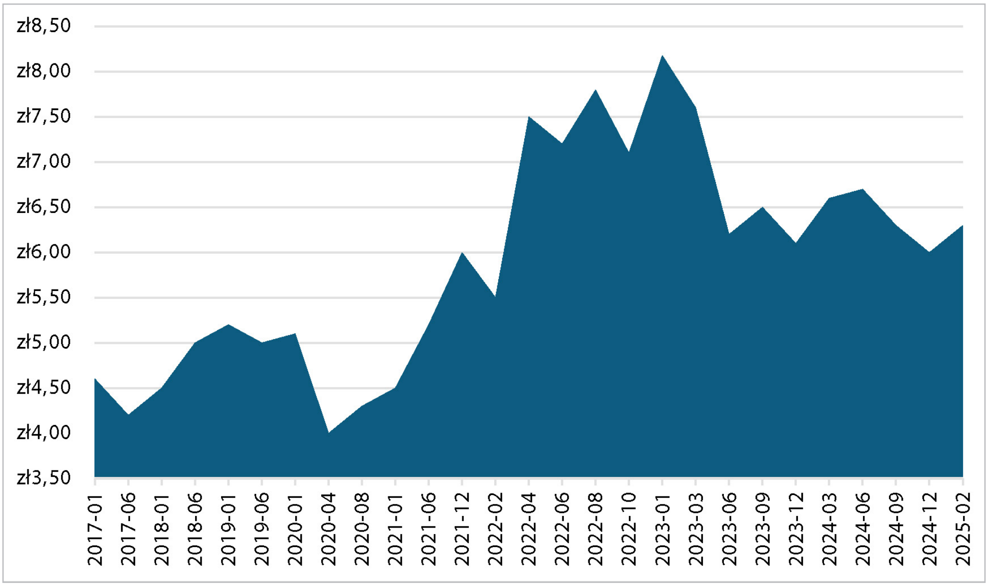

Fig. 2. Average price of diesel fuel in PLN/litre in 2017-2023 in Poland (own study based on e-WGT online agricultural exchange – average fuel prices at stations according to e-petrol)

The drop in the average price of around PLN 4 in mid-2020 provided certainly good news for carriers, especially considering the pandemic-related challenges they faced during that period. However, the situation differed significantly in the longer term in terms of price increases. Sudden changes always pose the greatest difficulty, especially in view of such an important matter for transport as fuel costs. This was the case at the beginning of 2022, when, after a steady increase during the pandemic, prices suddenly skyrocketed, as shown in fig. 2. In just over two months from February 2022 to April 2022, the average price rose by nearly 42% (using precise daily mini-max threshold data, the increase increased from PLN 5.28 to PLN 7.46) (Warsaw Agricultural Exchange, e-WGT Internet Agricultural Exchange). In transport, where fuel costs usually account for 10% to 22% of total costs (Izadi et al., 2019), even small fluctuations in the price of this resource have a huge impact on the profit from the services performed, a factor often mentioned by road transport companies. The situation that can be observed since the abovementioned period results directly from global crises. The literature most often cites the impact of the pandemic or the war in Ukraine as the main causes. Restrictions or a complete stoppage of trade with the East, human fear, and unpredictable and unusual events have a significant impact on the economy and, consequently, on prices and inflation (fireTMS Team, fireTMS, 2022). Manipulating fuel prices was easy, however, as noted in research by Santos (2017), who analysed the impact of taxes on fuel prices in European countries and found that in all European countries, taxes on fuel account for about half of the price of fuel.

The war in the east, apart from affecting diesel prices, also impacted other factors. Carriers who regularly travelled to eastern destinations were particularly affected. The closure of borders and the implementation of sanctions suddenly took around 20,000 Polish vehicles out of circulation (PhD Maciej Stajniak for Bankier.pl, 2024). The difficulties associated with Russian aggression also affected other carriers. In June 2022, road transport was liberalised through an agreement between the EU and Ukraine, the aim of which was to support the war-torn country by boosting trade. While effective, the agreement had a negative impact on Polish carriers. The opening of the market caused a sudden increase in the number of Ukrainian vehicles, with which Polish companies were forced to compete on unfair terms. This situation is perfectly illustrated by the chart below, which shows the border traffic of lorries between Ukraine and Poland in 2019-2024 (fig. 3).

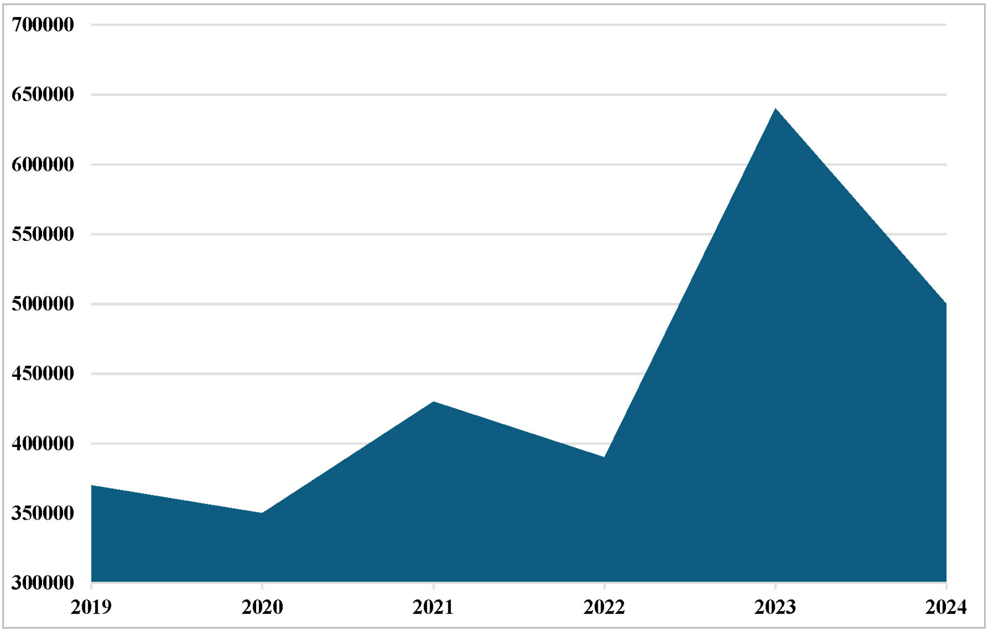

Fig. 3. Number of crossings of the PL-UA border by heavy goods vehicles from all countries combined (TLP report "Road transport in Poland 2024/2025")

The graph shows a significant increase in the overall number of border crossings by heavy goods vehicles in the period following transport liberalisation for Ukraine. This is confirmed by data showing that the number of lorries registered in Ukraine crossing the border with Poland in the period 2021-2023 increased by over 45% (TLP, 2024, Report ‘Road transport in Poland 2024/2025’). This situation led to unfair competition in the transport market, which resulted in protests by Polish carriers, consisting of weeks-long blockades of key border crossings between the EU and Ukraine. The main reasons for the protests were unfair access criteria and significant differences in operating costs. Eastern companies were not regulated by European regulations, and the average salary of a driver from that region was less than half the average salary of a Polish driver. This resulted in lower transport rates and a reduced share of Polish carriers in freight transport (Popławski et al., 2024).

In addition to their indirect impact through granting simplified market access to Ukrainian carriers, the legal regulations also have a direct impact on the situation of Polish carriers. The European Union’s actions focus on environmental considerations, as evidenced by the provisions of the European Green Deal and related recommendations. Although this has a positive justification in its purpose, it is also another aspect that profoundly affects the road transport sector. The industry is under particular pressure from the EU’s decarbonisation targets, which introduce charges on fossil fuel vehicles (ETS II) and constantly increase road tolls, which are also to be dependent on emissions. The scale of Polish carriers that will be affected by the increase in the abovementioned costs is shown in the chart below. It presents the type of vehicle drive system, with a gross vehicle weight of 16 tonnes and above, which was chosen in Poland in 2022-2023 (fig. 4).

During the period in review, newly registered diesel-powered trucks accounted for 98.99% of all trucks in Poland (TLP, 2024, Report on Road Transport in Poland 2024/2025). This is also confirmed by the findings of a study by Gajewski (2024), who in his article ‘Main Directions of Changes in Road Transport of Goods in Poland’ also stated that Poland’s road transport companies mainly use conventional fuels such as diesel. Thus, based on the reasonable assumption that this trend was similar in previous years, it can be safely concluded that the increase in road tolls will affect almost all carriers in Poland.

However, it is not only regulations related to the decarbonisation of transport that pose a challenge for them. The Mobility Package and the changes it introduces are also widely discussed. There is noticeable opposition to these regulations, as evidenced by the appeal against the regulations to the Court of Justice of the European Union lodged by the Minister of Infrastructure, Andrzej Adamczyk. He also stated that the Package’s solutions are incompatible with fundamental EU principles, such as the freedom to provide services and the internal market, and called the regulations themselves protectionist, restrictive and discriminatory towards Polish carriers. He also mentioned that this is due to the creation

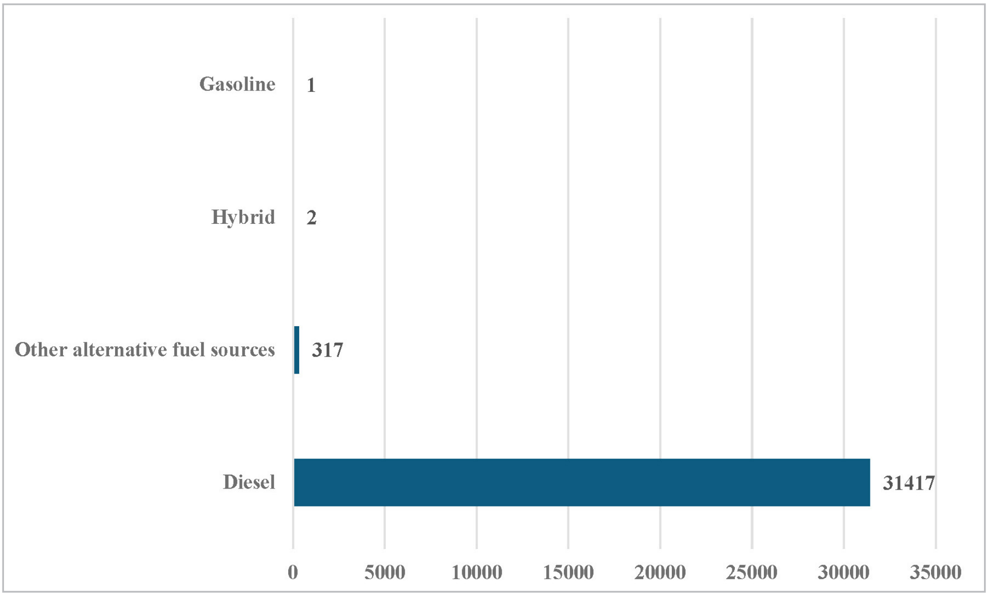

Fig. 4. Number of new registrations of heavy goods vehicles in Poland by drive type in 2022-2023 (GVW 16 tonnes and above) (own study based on the TLP report "Road transport in Poland 2024/2025")

of artificial administrative barriers and unfair opportunities under the pretext of improving social conditions for drivers. In addition, the regulation requiring regular returns to the country where the transport company is based was considered paradoxical. In this case, it was emphasised that such a solution is not in line with the current demands of the Community, as it will increase CO_2 emissions across the European Union by an additional 3 million tonnes per year (Ministry of Infrastructure, Gov.pl, 2020). However, the changes will also affect drivers' salaries, thus increasing another cost incurred by business owners. This is because under the new accounting rules introduced by the Mobility Package, from 2 February 2022, it will no longer be possible to pay drivers in the form of business travel allowances, which were not subject to tax or social security contributions. According to Konrad Urban, President of the Management Board of Transcare Transport Law Firm and Director of the Labour Law Department at LEGALTRANS Transport Law Firm, this solution means another area of significant cost increase for Polish carriers. According to estimates, assuming the most optimal calculations of employee allowances, the total cost of a driver's remuneration to be borne by the employer will increase by 21.19% (Konrad Urban, Trans.eu, 2022). Moreover, according to the regulations, from August 2025, every vehicle performing international transport within the European Union must have a second-generation tachograph. For carriers, replacing older devices with the new version will cost several thousand PLN per vehicle. According to Waldemar Jaszczur, president of the Committee for the Defence of Carriers and Transport Employers, the obligation to replace devices at the expense of companies is pure absurdity, and the Mobility Package itself is destroying Polish carriers (gku, Businessinsider.com.pl, 2024).

While posing challenges for transport companies, the Mobility Package significantly strengthens the social standards of work for drivers. However, despite these improvements, there remains a shortage of employees for this position. Currently, approximately 120,000 vacancies exist for professional drivers in Poland (Michał Dobrołowicz, RMF24, 2025). This is one of the most serious challenges facing transport companies, as it directly affects the performance of their services. According to Paweł Kowalski, President of the Management Board of TVM Transport & Logistics, the key reasons for this problem are the average age of professional drivers and the insufficient interest among young people, who consider this job unattractive and fear the impact of long periods away from home on their family and social life (TLP, 2024, Report 'Road transport in Poland 2024/2025').

The actual impact of all the crises mentioned above on the transport industry is confirmed by their presence in the chart below. This presents the results of a survey in which carriers rated on a scale of 1 to 10 the challenges that their companies will have to face in the next five years (fig. 5).

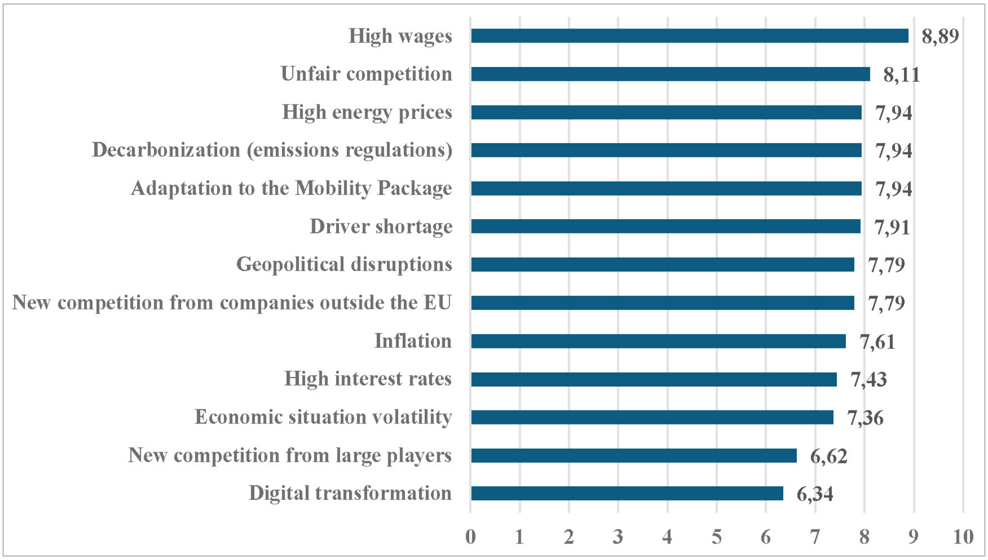

Fig. 5. Results of a survey in which carriers rated on a scale of 1 to 10 the importance of challenges that the company will have to face in the next five years (1 = very small / 10 = very big challenge) (own study based on the TLP report 'Road transport in Poland 2024/2025')

The opinions of people affected on a daily basis by the situations described in the study best reflect the actual challenges faced by transport companies. Respondents indicated high salaries as the most demanding factor. This is due to changes in delegations introduced with the mobility package. Another reason may be the limited supply of drivers and the more stringent requirements for applicants due to the possibility of choosing from among job offers. Fierce competition and surging energy prices, also influenced by the abovementioned crises, were also among the most significant challenges.

6. DISCUSSION

In the context of the research question, which aimed to present the actual impact of global and local crises on Polish entrepreneurs providing services in the road transport sector, the results highlight several important issues.

The status of Polish carriers on the international stage is indisputable and widely recognised: they are considered leaders in the transport sector, as evidenced by transport statistics and the number of transport companies. Despite these figures and Poland's position in the rankings, its road transport sector faces numerous challenges that significantly affect the operations of many companies.

The current crisis in the transport market is composed of many factors which, when combined, have compounded existing problems. This situation has been most evident since the outbreak of the pandemic, which had major complications both locally and globally. Disruption to supply chains, restrictions on movement, declining freight supply and rising inflation during that period challenged for every segment of road transport. On a macro scale, this led to an economic collapse. This was particularly noticeable in the decline in GDP never previously seen on such a scale in the history of the available data. The pandemic's impact on the economy coincided with the escalating conflict in Ukraine and further challenges related to the new situation in current times. Increased loan instalments, inflation, further disruptions to supply chains, the shutdown of the eastern market, the liberalisation of the law for Ukrainian carriers and the resulting unfair competition led to strikes and blockades by carriers during this period. Those in an increasingly difficult situation were further impacted by legal regulations. The European Union's pro-environmental policy, aimed at minimising CO_2 emissions and achieving climate neutrality, has only worsened the already difficult financial situation of transport companies. The hikes in road tolls and the planned introduction of an emissions trading system for road transport will significantly impact the sector. Adding fuel to the fire throughout this period is the Mobility Package, which, under the pretext of social benefits for drivers, introduces requirements that are incompatible with fundamental principles, such as the freedom to provide services and the EU single market. The regulation, by changing the rules governing delegating drivers and wages and introducing a requirement to replace tachographs, also expose carriers to further huge costs. On top of the current situation faced by carriers is the fact that there is a massive shortage of professional drivers, without whom it is impossible for companies to provide transport services.

The result of the entire ‘hyper-crisis’, combined with many smaller crises, is the worst situation in this sector in over 20 years. Due to a lack of funds and high costs, carriers are forced to limit or stop investing, and in the worst cases, to reduce their vehicle fleets and cut their workforce. Consequently, many are also forced to restructure their operations, while 13% are on the verge of bankruptcy and are unable to meet their obligations on a regular basis. It is worth adding that in the first quarter of 2023 alone, as many as 120 road transport companies declared bankruptcy.

7. CONCLUSIONS

The analysis shows that the crises faced by Polish carriers in almost every case had a significant financial impact, with each problem negatively affecting the profits of transport companies and the stability of the industry. Disruptions to daily operations and sudden, exceptional situations, such as the pandemic, war in Ukraine, new law regulations like the Mobility Package, and also the changing economic situation, have forced carriers to take up the challenge of adapting to the new situation and reorganising their current processes. The situation is not improved by the growing shortage of professional drivers, without whom it is impossible to carry out transport operations. Increasing financial burdens, unforeseen challenges and the problem of unfair competition are putting Polish carriers in a difficult position on the market. Recent years, marked by the abovementioned crises and unfavourable economic conditions for the road transport sector, have resulted in rising debt, leaving many entrepreneurs fighting for survival on the market, with carriers finding themselves in their worst situation in two decades. However, it should be noted that despite the enormous crisis that has hit Polish carriers, they are still among the best in their field in Europe. Adapting to the situation could take this sector to an even higher level of market dominance and break through the 20% glass ceiling for freight transport operations in Europe.

Adapting to the crisis as a new reality and the desire to continue operating during this period is forcing companies to optimise most areas of their business. It is particularly important to enhance cost management and eliminate empty runs. However, improving the actual situation also requires legal support, for example, in the form of government subsidies for replacing tachographs or preventing unfair competition, as was the case with carriers from Ukraine. Deregulation or liberalisation of certain areas related to the decarbonisation of road transport may also be of benefit. Without appropriate measures to support the industry, many companies remain at risk, which could have far-reaching consequences for the entire economy due to the significant impact of road transport on the country's GDP.

Unfortunately, the analysis encountered limitations, such as difficulties in analysing primary data due to a lack of willingness to cooperate in providing direct data from a larger number of companies in the road transport sector. This, however, opens up further research opportunities, this time focusing on the direct views of road carriers. This would make it possible to compare reports and the opinions of industry experts with data and views from the practical side of road transport. Furthermore, the study also provides opportunities for further research on the subject, particularly regarding the ability of Polish carriers to adapt to new market realities, including low-emission transport and digitalisation, as well as to analyse further how they have adapted to the new rules on the road transport market.

LITERATURE

Albuquerque, F.D., Maraqa, M.A., Chowdhury, R., Mauga, T., Alzard, M. (2020). Greenhouse gas emissions associated with road transport projects: current status, benchmarking, and assessment tools. *Transportation Research Procedia*, 48, 2018-2030.

Babina, T., Hilgenstock, B., Itskhoki, O., Mironov, M., Ribakova, E. (2023). Assessing the impact of international sanctions on Russian oil exports. Available at *SSRN 4366337*.

Becker, I.U.J., Becker, I.T., Gerlach, D.W.I.J. (2012). *The true costs of automobility: External costs of cars overview on existing estimates in eu-27*.

Ciuriak, D. (2022). The economic consequences of Russia's war on Ukraine. *Verbatim, CD Howe Institute*, 11.

Erbach, G., Jensen, L. (2022). Fit for 55 package. *EPRS, European Parliament*.

European Commission (2021). "Gotowi na 55": osiągnięcie unijnego celu klimatycznego na 2030 r. w drodze do neutralności klimatycznej. COM(2021) 550 final.

Eurostat (2023). *Key figures on European transport – 2023 edition*.

Fjaertoft, D., Overland, I. (2015). Financial sanctions impact Russian oil, equipment export ban's effects limited. *Oil & Gas Journal*, 113(8).

Gajewski, R. (2024). Main Directions of Changes in Road Transport of Goods in Poland. *Annales Universitatis Mariae Curie-Skłodowska. Sectio H Oeconomia*, 58(5), 7-20.

Ghazanfari, A. (2020). The impact of the Covid-19 pandemic and crude oil price crisis on the price of automobile fuels in European countries. *Diverse Journal of Multidisciplinary Research*, 2(6), 10-19.

Górczyńska, A., Lichocik, G., Sadowski, A. (2018). Environmental performance of road transport systems. Case study of logistics operator. *Przedsiębiorczość i Zarządzanie*, 19, 153-164.

GUS (2024). *Raport: Transport drogowy w Polsce w latach 2022 i 2023*.

Huang, J., Wang, H., Fan, M., Zhuo, A., Sun, Y., Li, Y. (2020). Understanding the impact of the COVID-19 pandemic on transportation-related behaviors with human mobility data. In: *Proceedings of the 26th ACM SIGKDD international conference on knowledge discovery & data mining*, 3443-3450.

IRU (2023). *Global truck driver shortage report*.

Izadi, A., Nabipour, M., Titidezh, O. (2019). Cost models and cost factors of road freight transportation: A literature review and model structure. *Fuzzy Information and Engineering*, 11(3), 257-278.

Ji-Hyland, C., Allen, D. (2022). What do professional drivers think about their profession? An examination of factors contributing to the driver shortage. *International Journal of Logistics Research and Applications*, 25(3), 231-246.

Kos, B. (2024). The Impact of The Eu Climate Policy on The Operation of The Transport, Forwarding and Logistics Sector. *Zeszyty Naukowe Akademii Górnośląskiej*, 24, 89-99.

Kos, B., Krawczyk, G., Mercik, A., Tomanek, R. (2022). Mobilność miast przyszłości. *Prace Naukowe / Uniwersytet Ekonomiczny w Katowicach*.

Łącka, I., Suproń, B. (2021). *The impact of COVID-19 on road freight transport: Evidence from Poland*.

Notteboom, T., Pallis, T., Rodrigue, J.P. (2021). Disruptions and resilience in global container shipping and ports: the COVID-19 pandemic versus the 2008-2009 financial crisis. *Maritime Economics & Logistics*, 23(2), 179.

Olejniczak, K., Dębicka, A. (2025). The impact of the EU mobility package on SMES in the Polish road transport sector: an empirical analysis. *Zeszyty Naukowe. Transport / Politechnika Śląska*.

Ovaere, M., Proost, S. (2022). Cost-effective reduction of fossil energy use in the European transport sector: An assessment of the Fit for 55 Package. *Energy Policy*, 168, 113085.

Pomykała, A. (2021). Zmiany na rynku transportowym w erze COVID-19. Pierwszy rok pandemii. *Zeszyty Naukowo-Techniczne Stowarzyszenia Inżynierów i Techników Komunikacji w Krakowie. Seria: Materiały Konferencyjne*.

Popławski, K., Całus, K., Dębiec, K., Gizińska, I., Matuszak, S. (2024). Nierówna konkurencja. Konsekwencje liberalizacji przewozów drogowych UE–Ukraina dla Europy Środkowej. *Komentarze OSW. Ośrodek Studiów Wschodnich*, 587.

Sadłowski, A., Kijek, A., Zając, A. (2025). Impact of Russian Invasion of Ukraine on the Polish Transport Sector. *Ekonomista*, 1-15.

Santos, G. (2017). Road fuel taxes in Europe: Do they internalize road transport externalities? *Transport Policy*, 53, 120-134.

Suproń, B. (2020). Influence of the mobility package on the functioning of the Polish road transport of goods sector. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 64(3), 92-106.

TLP (2024). *Raport "Transport drogowy w Polsce 2024/2025"* [*Road transport in Poland 2024/2025*].

Waśkiewicz, J., Menes, M., Gis, W. (2018). Eksperckie oszacowanie skali zaangażowania krajowych przedsiębiorstw międzynarodowego transportu ciężarowego w przewozach na obszarze Niemiec. *Transport Samochodowy*, 1, 7-23.

Zhu, G., Chou, M.C., Tsai, C.W. (2020). Lessons learned from the COVID-19 pandemic exposing the shortcomings of current supply chain operations: A long-term prescriptive offering. *Sustainability*, 12(14), 5858.

Online resources

4mobility.pl (2025). *Mobilność w czasie wojny: Jak konflikty zbrojne wpływają na transport?* Retrieved from https://4mobility.pl/mobilnosc-w-czasie-wojny-jak-konflikty-zbrojne-wplywaja-na-transport/ (1.03.2025).

Adam Woźniak, Rzeczpospolita (2024). *Polskie firmy transportowe toną w długach. Rozkręca się spirala upadłości*. Retrieved from https://www.rp.pl/transport/art40667811-polskie-firmy-transportowe-tona-w-dlugach-rozkreca-sie-spirala-upadlosci (15.03.2025).

Bartłomiej Drążkiewicz, PITD (2024). *Brakuje kierowców! Jak rozwiązać największy problem w transporcie drogowym?* Retrieved from https://pitd.org.pl/pl/news/brakuje-kierowcow-jak-rozwiazac-najwiekszy-problem-w-transporcie-drogowym (1.03.2025).

Dr hab. Maciej Stajniak, Bankier.pl (2024). *Branża transportowa w kryzysie. Ponad połowa polskich przewoźników chce ciąć zatrudnienie, apelują o wsparcie*. Retrieved from https://www.bankier.pl/wiadomosc/Branza-transportowa-w-kryzysie-Ponad-polowa-polskich-przewoznikow-chce-ciac-zatrudnienie-apeluja-o-wsparcie-8759294.html (24.02.2025).

FireTMS Team, fireTMS (2022). *Ceny paliw a branża transportowa.* Retrieved from https://firetms.com/pl/blog/ceny-paliw-a-branza-transportowa (14.03.2025).

Gku, businessinsider.com.pl (2024). *To już kryzys. W transporcie firmy upadają jedna po drugiej*. Retrieved from https://businessinsider.com.pl/wiadomosci/to-juz-kryzys-w-transporcie-firmy-upadaja-jedna-po-drugiej/yztl1wm (15.03.2025).

Iwona Konieczna, Prilo.com (2023). *Z jakimi wyzwaniami mierzy się obecnie branża transportowa?* Retrieved from https://prilo.com/pl/z-jakimi-wyzwaniami-mierzy-sie-obecnie-branza-transportowa/ (25.02.2025).

Joanna Spiller, Teraz-srodowisko.pl (2022). *Rosnące zapotrzebowanie na transport w Europie zwiększa emisje z pojazdów ciężkich*. Retrieved from https://www.teraz-srodowisko.pl/aktualnosci/transport-ciezki-emisjie-co2-europejska-agencja-srodowiska-12349.html (1.03.2025).

Konrad Urban, Trans.eu (2022). *Pakiet mobilności a wynagrodzenia kierowców*. Retrieved from https://www.trans.eu/pl/blog/tfc/truck-pakiet-mobilnosci-a-wynagrodzenia-kierowcow/ (15.03.2025).

Kuik, F., Adolfsen, J.F., Lis, E.M., Meyler, M. (2022). Energy price developments in and out of the COVID-19 pandemic – from commodity prices to consumer prices. *European Central Bank*. Retrieved from https://www.ecb.europa.eu/press/economic-bulletin/articles/2022/html/ecb.ebart202204_01~7b32d31b29.en.html (3.04.2026).

Maciej Maroszyk, Logistyka.net.pl (2023). *Rok po wprowadzeniu kolejnych zasad w Pakiecie Mobilności*. Retrieved from https://www.logistyka.net.pl/bank-wiedzy/item/93717-rok-po-wprowadzeniu-kolejnych-zasad-w-pakiecie-mobilnosci (8.03.2025).

Marcin Szmandra, Tachospeed (2024). *Problemy branży transportowej. Czy jest rozwiązanie?* Retrieved from https://tachospeed.pl/blog/problemy-branzy-transportowej-czy-jest-rozwiazanie/?srsltid=AfmBOoq6yknSejmhkhLC619rAQuF5wgDuFauq8rwL4Z6tuoh95dwCnj2 (15.03.2025).

Michał Dobrołowicz, RMF24 (2025). *Ilu kierowców brakuje w Polsce? Znamy najnowsze wyliczenia*. Retrieved from https://www.rmf24.pl/ekonomia/news-ilu-kierowcow-brakuje-w-polsce-znamy-najnowsze-wyliczenia,nId,7887251#crp_state=1 (15.03.2025).

Michał Pakulniewicz, Trans.info (2023). *Niedobór kierowców? Prawdziwe problemy zaczną się za pięć lat*. Retrieved from https://trans.info/pl/niedobor-kierowcow-na-swiecie-osiagnie-7-mln-juz-za-5-lat-ofni-372104 (8.03.2025).
Ministry of Infrastructure, Gov.pl (2020). *Polska złożyła skargę do TSUE na Pakiet Mobilności I*. Retrieved from https://www.gov.pl/web/infrastruktura/polska-zlozyla-skarge-do-tsue-na-pakiet-mobilnosci-i (15.03.2025).
MR, Business Insider (2024). *Ostre hamowanie polskiego PKB. GUS podał dane za pełny 2023 rok*. Retrieved from https://businessinsider.com.pl/gospodarka/ostre-hamowanie-polskiego-pkb-gus-podal-dane-za-pelny-2023-rok/sseb25v (1.03.2025).
Patrycja Hamielec, Timocom (2024). *Opłaty drogowe od 1 stycznia 2025 roku – gdzie i od kiedy będzie obowiązywać wyższe myto w krajach UE*. Retrieved from https://www.timocom.pl/blog/op%C5%82aty-drogowe-polska-i-europa-582572 (1.03.2025).
PITD Editorial Office (2024). *Eurostat podsumował transport drogowy*. Retrieved from https://pitd.org.pl/pl/news/eurostat-podsumowal-transport-drogowy (24.02.2025).
Polish Language Dictionary, Def. *Tonokilometr*. Retrieved from https://sjp.pwn.pl/doroszewski/tonokilometr;5507918.html.
Polish Press Agency (PAP) (2025). *Mimo kryzysu polskie firmy transportowe przewożą 20 procent towarów w Europie*. Retrieved from https://www.pap.pl/mediaroom/mimo-kryzysu-polskie-firmy-transportowe-przewoza-20-procent-towarow-w-europie (9.03.2025).
Robert Przybylski, Logistyka RP (2022). *Transport drogowy będzie objęty ETS*. Retrieved from https://logistyka.rp.pl/regulacje-ue/art37648761-transport-drogowy-bedzie-objety-ets (1.03.2025).
Warszawska Giełda Rolna, Internetowa Giełda Rolna e-WGT. Średnie tygodniowe ceny paliw wg e-petrol. Retrieved from https://www.ewgt.com.pl/towary/dane/index.php?id=6 (11.03.2025).
Wojciech Paczos, Napokolenia.pl (2024). *Gospodarcza odbudowa po pandemii COVID-19*. Retrieved from https://napokolenia.pl/gospodarcza-odbudowa-po-pandemii-covid-19/ (26.02.2025).
ZMPD (2020). *Pakiet Mobilności. Informator praktyczny ZMPD*. Retrieved from https://zmpd.pl/aktualnosci_pliki/f-GLOWNY-1934-3112-1788.Pakiet_Mobilnosci_I_-_prezentacja_ZMPD_2-09-2020.pdf (8.03.2025).

WPŁYW GLOBALNYCH I LOKALNYCH KRYZYSÓW NA FUNKCJONOWANIE TRANSPORTU DROGOWEGO W POLSCE

Streszczenie

Polski transport drogowy jest numerem jeden w Europie, odpowiada za ponad 20% pracy przewozowej na Starym Kontynencie, generuje również 6% polskiego PKB. Jednak od wybuchu pandemii COVID-19 zauważalny jest ogromny kryzys, który – złączony z wielu pomniejszych – eskalował do rangi najpoważniejszego od ponad 20 lat. Celem pracy jest omówienie kluczowych powodów kryzysu w branży polskiego transportu drogowego oraz ukazanie faktycznych konsekwencji tych problemów. Przedstawienie powodów oraz skutków wspomnianych sytuacji jest kluczowe dla zrozumienia powagi rzeczywistości, z jaką mierzą się przewoźnicy w Polsce. Badanie miało charakter opisowy i zostało przeprowadzone z wykorzystaniem analizy danych pochodzących z raportów głównych organizacji sektora transportu drogowego. Uzupełniono je przeglądem literatury naukowej, obserwacją oraz analizą rzeczywistych przypadków, a także analizą opinii ekspertów branżowych. Stwierdzono, że skumulowanie w krótkim czasie wyzwań związanych z pandemią, ze spowolnieniem gospodarczym, z wojną w Ukrainie, brakiem kierowców zawodowych oraz polityką UE doprowadziło do zwiększenia kosztów działalności, a także wymusiło szybką reorganizację procesów i struktur w przedsiębiorstwach. Pojawienie się nagłych zmian i niecodziennych sytuacji zmusiło wiele firm do redukcji floty, a w najgorszych przypadkach zakończyło się restrukturyzacją lub upadłością. W rezultacie badanie dowiodło, że wspomniane sytuacje znacząco odzwierciedliły się w kryzysie, który dotknął branżę polskiego transportu drogowego. Wykazano przymus adaptacji przewoźników do aktualnej sytuacji, którą nazwano nową rzeczywistością. Ustalono również to, że kluczowe w tej sytuacji jest odpowiedzialne podejście, które w swojej strategii musi być nastawione na elastyczne działanie i dopasowywanie się do aktualnych warunków stawianych przez globalne i lokalne kryzysy.

Słowa kluczowe: pandemia, kryzys, wojna, transport, transport drogowy, przewoźnik, pakiet mobilności, neutralność klimatyczna, koszty, emisje gazów cieplarnianych