
The Labour Market of Professional Drivers in Poland in the Period of Structural and Pandemic Changes

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Abstract:

Purpose: Professional drivers are one of the most important links in the network of business relationships in road transport. Their importance for the effective functioning of transport, both domestic and international, is enormous. The large scale of the shortage of drivers, analyzed in the context of their significance for modern supply chains, is currently one of the most pressing problems of road hauliers. The main purpose of the article is presentation the current and future trends related to the impact of the COVID -19 pandemic on the labour market of drivers in the context of determining the reasons for which they leave the profession or change employers. In addition, the current and future barriers to entering the profession, especially for young drivers, will be presented through the prism of their professional competences on the domestic and international transport market.

Design/Methodology/Approach: Description, systematization and conclusions resulting from the analysis of facts covered by the topic of the paper and forecasts regarding the labour market for professional drivers in road transport. The method used results from the adopted goal and assumed outcomes and focuses on analyzing scientific sources and publications from the transport and freight forwarding market as well as own experiences.

Findings: The labour market in terms of the availability of professional drivers will become increasingly difficult for transport companies. Poland is facing the problem of societal aging and shrinking population, which means that new resources of potential drivers are limited. Fully autonomous vehicles are therefore a long-awaited revolution - companies that will be able to use this technology first will gain a significant competitive advantage. This perspective is not that long away in time. Changes awaited already before the pandemic and the future labour market forecasts seem to be a harbinger of a new quality of work, but they also pose many challenges for educational and business institutions and employers.

Originality/Value: We argue that both the problems related to the number and structure of professional drivers in Poland and the consequences of Covid -19 should be treated as one of the key analytical areas in road transport.

Keywords: Job market for professional drivers, pandemic, structural changes in the labor market.

JEL codes: J3, J21, J23, J6, O15.

Paper Type: Research study.

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1. Introduction

The outbreak of the COVID-19 pandemic at the end of 2019 and its development from March 2020 onwards led to a crisis forcing all sectors of the economy, including the road transport sector, to face and operate in a difficult reality of economic uncertainty. A dynamic increase in tonnage and transport demand results in a constantly growing shortage of drivers on the labour market. Moreover, Polish hauliers must be ready for further challenges related to the development of transport technologies and the regulatory and legal environment.

The shortage of drivers with appropriate required skills, which is noticeable in the Polish road transport industry, is likely to deepen and will have a negative impact on the dynamics of growth in hauliers' turnover. In the coming years, an increase in the demand for road transport services is expected, which will most likely translate into a higher demand for professional drivers. At the same time, it should be noted that this shortage is primarily of a qualitative nature.

Despite the fact that transport businesses are currently able to fill almost any job position, it is estimated that about 20% of drivers do not have appropriate skills to ensure the required work efficiency in terms of travel costs (ecodriving) or operating time (ability to efficiently perform parking manoeuvres in logistics parks without generating time shifts in operations on the warehouse side). In the current situation, small hauliers have a much bigger problem with recruiting employees (PwC, 2019).

2. Changes in the Drivers' Environment

Taking into account the wide spectrum of anticipated changes directly affecting the professional drivers' environment, it is worth directing attention to a report prepared by PwC - a global organization providing professional consulting services (PwC, 2019). The report organizes and groups these changes into several dimensions as well as discusses trends that will shape the road transport market in the next two decades. It indicates that one of the five forces that will shape road transport in Poland in the coming years, apart from an increase in the volume of domestic transport, both import and export, reorganization of international transport (changes in EU law), digitization and industrialization, will undoubtedly be the growing shortage of professional drivers.

And so, already in 2015, this shortage was estimated at around 100-110,000 drivers. It accounted for over 15% of the total supply estimated at 600-650,000 compared to the demand estimated at nearly 730,000 drivers. Representatives of the transport industry - respondents in the conducted interviews, during the preparation of the report stated that at the end of 2018 this gap had reached the level of 20% of the demand (in qualitative terms, i.e. shortage of employees with sufficient skills). Maintaining the forecast market growth and assuming that the gap will remain close to the current 20%, it can be stated that the total shortage of drivers in the industry

will reach nearly 200,000 in 2022 with a demand of approximately 950,000 people. As a consequence, the insufficient number of drivers will also lead to an increase in wage costs in the industry and, as a result, an increase in freight rates, which is already visible in signing contracts for carriage. It should also be remembered that putting autonomous vehicles into use will not fill this shortage in the short term due to the lack of "mature" solutions in this area.

Due to the fact that there is an insufficient number of drivers, the PwC report (PwC, 2019) analyzes five forces shaping the market situation: demand from employers, supply of drivers on the market (number and quality of drivers), availability of substitutes for drivers' work (such as technology, other means of transport), migration and entering and exiting from the job market. The analysis of social factors influencing the industry led to the following conclusions:

1. As already mentioned, the forecast increase in turnover in the industry will translate into increased demand for work, which may deepen the shortage of drivers in the next 5 years. Estimates indicate that by 2022 there may be a shortage of 200,000 drivers due to the negative balance of entries and exits from the profession with the simultaneous growth of the industry.
2. Maintaining work supply is threatened due to the age structure in the transport industry and drivers' increased expectations regarding the standard of living (competition from other industries, insufficient quality of social facilities, long distances away from home), which may deepen the gap as regards demand.
3. In terms of market entry, insufficient driver training resources may be a constraint on the efficient execution of transport operations, and measures taken to reduce the gap between supply and demand do not fully solve the problem. Further steps in this area are required.
4. Drivers' migrations will not allow to fill the above-mentioned gap because drivers from across the eastern border who meet hauliers' needs are already beginning to run low. A temporary solution might be to employ drivers from Asian countries (e.g. Vietnam, Nepal, the Philippines, Kazakhstan, Uzbekistan, Tajikistan). However, these countries are also beginning to notice drivers' shortages.
5. ting (replacing) human work with technological solutions is not yet sufficiently developed to fill the staffing gap. In addition, rising wages for drivers are no longer solving the problem. Full automation in the transport sector will only be possible in several years at the earliest.

Therefore, it can be assumed that these factors will result in two effects:

- a) shortage of drivers with skills at the level expected by the industry, causing the risk of a lack of full coverage for the truck fleet owned by carriers,

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- b) an increase in costs due to the imbalance of supply and demand for labour and an increase in the financial expectations of employees in the transport industry.

3. Demand for Drivers' Work

Demand for transport services is growing dynamically, and the growth rate of carriage services is much faster than the growth rate of employment. In the years 2012-2015, approximately 35,000 people received initial qualification, and the number of people leaving the profession was estimated at approximately 25,000 per year. This means that the annual influx of drivers to the profession did not exceed 10-15,000 of their current number (PwC, 2016). The level of entries into the profession balances the level of exits from the profession, but it is not able to fill the gap that has arisen over the years because the number of new drivers on the market is only reaching the level that allows the percentage gap to be kept constant.

Transport companies should also be prepared for the growing multiculturalism (multinationalism) of the workforce. It is estimated that in 2018 drivers from Ukraine accounted for as much as 72% of non-EU drivers working in Poland. If Ukrainian employee resources are exhausted in the near future, hauliers may also consider recruiting employees from Central or South and Eastern Asia.

Although there is a driver shortage on some foreign markets, employment in Europe remains attractive for workers from outside our continent due to significant differences in wages. It will also be necessary to implement professional human resource management in order to meet the growing expectations of drivers (along with the generational change), reduce their turnover and increase employees' attachment to an employer. Transport industry representatives agree that young workers increasingly expect to be able to stay at home regularly, stay in touch with family and friends, and keep contact with an employer via telematics solutions. Also, Polish state administration authorities should concentrate on providing real, specific actions aimed at supporting and subsidizing the process of obtaining driver qualifications and on simplifying procedures related to employing drivers from abroad.

It is also worth remembering that businesses benefiting from the *boom* in online shopping need additional employees (increased online sales as a consequence of limitations in traditional trade due to restrictions related to Covid-19). It relates mainly to distribution staff, couriers, drivers, freight forwarders and warehouse and logistics centres (Bagiński, 2021).

4. Labor Supply of Drivers - Demographic Factors

Poland, like most developed countries, is characterized by a declining birth rate and a dynamically aging society. The forecasts are pessimistic and indicate that between

2020-2025 the population will decrease by almost 400,000, i.e., by over 1%. Although the decline will be small in the near future, it may prove to be more noticeable in the longer time perspective. It is estimated that by 2050 the population will have decreased by approximately 11%, i.e., to approximately 34 million. People at working age are to decrease in relation to people at post-working age. These changes will deepen the shortage of staff in key sectors of the economy, including the transport sector.

In 2016, there were 4.3 million people authorized to drive heavy goods vehicles in Poland. Licensed drivers are mostly men over 35 years of age. The age group from 35 to 44 years (and each subsequent one) is approximately 20% of all eligible people. It can therefore be expected that nearly 20% of people currently entitled to drive heavy goods vehicles have already reached the retirement age, so there is a high probability that they will leave their jobs in the next 5 years.

Another group representing over 20% of the supply are drivers who will reach retirement age in the period from 1 to 10 years. This means that by 2030 up to 40% of current drivers may leave the market just because they reach retirement age. People under 35 make up 17% of all licensed drivers, which indicates a lower interest in the profession of a driver in younger age groups. Employment in the industry is dominated by men, and the percentage of women among licensed drivers is only slightly over 0.4%. The lack of interest in the freight transport industry among women is also a factor that limits the supply of drivers (PwC, 2018, p. 44).

It is also worth emphasizing that these data relate to people who are licensed to drive heavy goods vehicles, and only some of them actually practise the profession of a driver. If the age structure of professional drivers is consistent with the age structure of licensed persons, this poses a very high risk for the maintenance of the current, largely insufficient level of supply of these employees in the transport market.

5. Barriers to Drivers' Entry into the Labour Market

The problem of the lack of drivers has finally begun to be noticed by the Polish state authorities. And so, since 2016, 27 new classes with the 'driver-mechanic' profile have been opened in vocational schools. In the school year 2018/2019, there were already 136 vocational schools in Poland that opened classes with this profile. Thanks to new classes, one can expect an increase in the number of entries into the profession in the perspective of 3-5 years (learning in such classes lasts 3 years).

However, it should be remembered that the completion of the learning process in a vocational class is not the end of education necessary to enter the profession of a driver. The cost of obtaining a driving license is estimated at over PLN 10,000, and the additional initial qualification course increases the costs to approximately PLN 13,000, which obviously raises the barrier to enter the profession. Obtaining additional licenses of competence each time increases the costs by PLN 400-1,600,

depending on the type of license. The newly opened 'driver-mechanic' classes help reduce the barriers to enter the profession of a driver, reducing costs by up to 40%, as their completion directly leads to obtaining an initial qualification. It is estimated that with the current number of schools offering classes with the 'driver-mechanic' profile, in 2021 there will probably be more than 4,000 new candidates for drivers on the market, and in 2024 this number will exceed 12,000.

However, this number is far insufficient compared to the expected demand for drivers and the probable level of their retirement from the profession - maintaining the current ratio between the demand and supply of drivers would require approximately 15,000 drivers entering the market in the period 2019-2022 (PwC, 2018).

It should also be remembered that these larger transport companies often decide to organize training for drivers on their own. They try to improve their competences and prepare them for future work. According to the representatives of hauliers, the system of preparatory training does not guarantee the possibility of acquiring these skills because:

- it is based on too many theoretical classes and too few hours of practical driving lessons,
- even when training takes place on simulators, they are not used to their full potential,
- drivers learn to operate smaller trucks rather than those which they will later drive in their work (PwC, 2018).

There is a widespread belief that in practical terms the purpose of the courses is often to complete formalities and not to actually prepare a driver for the profession, which means that the burden of preparation for the profession rests with hauliers. Moreover, the road haulage sector and working as a driver are not perceived as something attractive. Working as a driver is associated with numerous inconveniences such as an insufficient level of social infrastructure, frequent and long periods of separation from the family, or very strict control over working and rest times resulting from the provisions of the Act on drivers' working time.

Inconveniences related to drivers' work are not fully compensated by earnings despite the fact that as for Polish standards they are at an attractive level. The average salary of drivers working on international routes is estimated at over PLN 7,000 net, and on domestic routes approximately PLN 5,000 net (these amounts include additions to the base salary). This is a relatively attractive amount considering that drivers' education is often vocational, and the median wage for this level of education in Poland is just over PLN 2,000. The high salary is the result not only of the base remuneration, but also of numerous allowances received by drivers, especially those in international transport (including business travel allowances, lump sums for accommodation, other supplementary benefits).

Statistics show that the length of employment in the driver's profession in 2019 averaged 13 years, and an average driver worked for one employer from 2 to 5 years. The high turnover of employees was caused, among other things, by the ease with which a new job could be found because of the unsaturated market (Transjob.eu, 2021).

When discussing issues related to the professional driver market, one should also pay attention to the dynamics of the average salary growth, which was definitely lower than in previous years. In one of the reports (GITD, 2021 Report), a decrease in median remuneration was recorded. There is a certain group of drivers who, together with the companies for which they worked, were able to profit from the crisis - and their earnings affect the growth of average earnings.

In this way, the group of drivers whose earnings in 2020 were lower than in previous years increased, setting the median at PLN 6,000 net. Does this mean that the base of drivers' remuneration has decreased? Definitely not. The structure of drivers' earnings is constructed in such a way that the basis is only one of the salary components, and an important element are allowances (sometimes also additional bonuses). And it was allowances that had the greatest impact on the observed drop in remuneration of those drivers who declared that their situation worsened in this respect (2021. Report. Polish Road Transport Institute).

On average, this decrease was as much as PLN 1,000 net and resulted from a smaller number of orders realized by some companies over a certain period of time. A driver who covered a smaller number of kilometers - especially spending shorter periods of time outside Poland (which was especially the case in March-May, 2020) - inevitably received a lower allowance. In addition, it is clear from the report that the work system has a significant impact on the amount of earnings, i.e. the more time is spent on the road, the higher salary is transferred to the account. This is naturally related to particular destinations where drivers go. Of course, working in international transport is valued the most.

The changes related to delegations and the required foreign remuneration package for drivers from Polish companies in cross-trade transport and in cabotage will take effect from February 2022 (Mobility Package). A particularly serious threat is the inability to include allowances and lump sums in foreign remuneration packages, which, without changes in the Polish law, will result in a significant increase in employee costs (in extreme cases by up to 100%) and will definitely reduce the competitiveness of Polish carriers on the European market.

It is worth adding that the report largely refers to the special year 2020 and the turn of 2021. Currently - in the second half of 2021 - it should be noticed that there is no calmness in the industry. There are more and more orders, there is less and less cargo space, and the rates are growing dynamically.

Another way to increase interest in drivers' work may be the creation of more comfortable working conditions by hauliers and infrastructure owners. An important aspect is the development of roadside infrastructure, such as parking lots, hotels, sanitary facilities and recreational areas so that drivers can rest in comfortable conditions. Polish carriers may also devote more attention to relations with drivers who increasingly expect better service through HR functions.

They require partnership-based treatment, openness and readiness to jointly set the rules of cooperation or flexibility in planning working time. Although a driver's job is inextricably linked to travels, the key aspect is the length of routes. Thus, what is important is the time spent away from home followed by the time which drivers can spend with their families. In order to meet these expectations, carriers would need more drivers and better route planning capabilities to ensure longer periods of home stays. Therefore, to coordinate this area, it is necessary to professionalize human resource management on the part of carriers, both large and small ones.

6. Driver Migration

Taking on foreign drivers contributes to filling the gap on the labour market - in the event of an insufficient supply of drivers over the eastern border, hauliers may look for them further away in Asia. It is estimated that (GUS, 2018):

- from 2019 to 2025, about 400,000 people will come to Poland, and by 2050 another 1.8 million people;
- by 2025, approximately 350,000 people will leave the country, and by 2050 a little more than 1 million will do the same.

As a result, the migration balance in Poland will be positive and it is estimated that in 2050 it will amount to over 850,000 people (GUS, 2018). Employees from abroad fill, among others, a gap on the drivers' market. There are already over 65,000 drivers from other countries driving Polish trucks, mainly from Ukraine and Belarus (72% and 24% of drivers from abroad respectively), but also from Russia and Moldova (GITD, 2018). The rest are a small group. Employees from these locations are drawn, among others, by attractive salaries in Poland and the political situation in Eastern Europe. An additional advantage of working in Poland is the cultural proximity and the ease of learning Polish, which reduces the barriers to economic integration.

It is not certain how many drivers can still come to Poland from Ukraine or other countries across the eastern border, but carriers also have other places at their disposal where they can look for drivers, including Asian countries such as Uzbekistan, India, Nepal, the Philippines and Vietnam. In some of these countries, the supply of workers is also becoming limited, as exemplified by estimated shortages in particular countries - in India 20-26%, in China approximately 4

million, in Thailand 15-20%. Nevertheless, drivers from Asian countries start working in Poland because of significant differences in earnings.

However, the supply of workers alone is not enough - it is also necessary to facilitate the process of validating the driving license and authorization to drive heavy goods vehicles as well as obtaining a residence and work permit. Hiring drivers from Asian countries is challenged by significant cultural differences, dissimilarities in the way of driving in different countries and employees' different attitude to work. Administrative procedures are also an obstacle because in the case of Asian employees there are no simplified employment procedures and collecting all the required documentation enabling such a person to work may take even more than a year.

7. Autonomusness as a Way to Fill the Gap on the Driver Labour Market

Autonomusness is now considered a threat to jobs. In the near future, it will become a practical solution that will fill the shortage of drivers on the job market. Unfortunately, it will not happen earlier than in 5, and probably 10 years. According to the PwC analysis (PwC, 2016), from the late 2020s, autonomusness in transport will progress faster than in any other sector, which is likely to have a positive impact on the industry and help fill the growing staff shortages.

It can be assumed that it will start to fill the gap in the perspective of 5 years at the earliest, and the real effects will be achieved in the perspective of 10 years. Therefore, automation does not constitute a short-term solution to the shortage of supply of drivers on the labour market, but it is a real opportunity in the long term. Despite forecasts that in other industries automation will slow down after 2020, in transport it can be expected to keep growing until at least 2030.

Autonomusness means that a company's efficiency is not only about improved vehicles, but also more efficient drivers. Autonomous vehicles can be perfectly used in places where broadly understood traffic is isolated - for example, it can be used in a practical way in transshipment hubs, but also on special routes adapted for this purpose (research on autonomous transport on the Berlin-Munich line is currently being carried out). The autonomy of vehicles or machines can and probably will have a revolutionary impact on every area of an enterprise.

8. Conclusions

For Polish transport companies, the low availability of drivers on the market is an intensifying problem. The influx of workers from Ukraine or Belarus or other countries solves the problem only partially. Another issue is the skills and quality of drivers' work. Those already trained in Poland often do not have sufficient practical skills, and this problem applies to an even greater extent to drivers from other

countries. There are also standard problems in communication between shippers and drivers.

When analyzing reports and data from the road transport labour market, it should be noted that Poland has not sufficiently developed non-financial incentives for drivers to persuade them to stay in the profession. Drivers with less professional experience prefer to spend time with their families. As a result, the percentage of people interested in the profession is decreasing. In order to change this tendency, it is necessary to propose changes in the work model - previously a driver was sent on the road for four weeks, now only for two. Drivers who are rooted in their profession choose to work in the west because of higher salaries, but they are not always aware of higher requirements set by foreign employers. It is estimated that if requirements were the same as those existing in Poland (and not higher), the Polish road transport market could additionally lose about 20% of drivers.

What is interesting, in 2004, two American scholars from the Massachusetts Institute of Technology and Harvard published the results of research on the labour market. They compiled a list of professions that are most likely to be automated. They indicated the profession of truck drivers as an example of work that will not be able to be automated in the foreseeable future. They argued that the algorithms would not be able to safely steer trucks in heavy traffic conditions (Levy and Murnane, 2004). Just ten years later, Google and Tesla are not only able to imagine it but are actually working hard to carry it into effect.

The Goldman Sachs Group, on the other hand, predicts that due to the imminent entry of robotaxis on roads, the value of the ride-sharing services market will increase from 5 billion dollars to 285 billion dollars by 2030. It is assumed that the increase in turnover is to be accompanied by higher profit margins due to cost reduction. This is to be the result of automatic drivers who will not have salary expectations (Podsiadły, 2018).

Against the background of competence-organizational changes in companies, one can see a clear evolution of trends in the human resource management policy. Managing a company in the era of economy 4.0 in accordance with the assumptions of responsible business will require employers to change their approach into one in which employees (here also professional drivers) will be in the centre of business strategy. As indicated by the results of the Human Capital Trends Report (Deloitte, 2019), employees should primarily be seen as humans, which means that it is necessary to strengthen their subjectivity in the organization, stop treating them instrumentally as profit generators and carriers of specific, useful competences, but create appropriate conditions for their development, taking into account their individual needs.

COVID-19 has fundamentally changed and will keep changing organizational culture. It will determine how to distribute work, expand and activate workspace,

and how to engage people. In the long term, the forecast changes will favour the development of communication in the workplace, creating a more flexible work environment focused on the health and well-being of employees, and not only on an organization's goals. One can treat COVID-19 not only as a pandemic threat, but as an important contribution to the implementation of a strategy concentrated on people and their needs, which can be combined with the needs and goals of modern enterprises on the global market (Wawrzonek, 2020).

It should also be emphasized that in 2020 (Świtała and Łukasiewicz, 2021) road freight transport was one of the industries hardest hit by the coronavirus pandemic. That is confirmed not only by the results of our own research, but also by statistical data showing a general decline in demand for road freight transport (GUS, 2021). In this context, it is also worth referring to the results of the analysis of traffic on national roads, which indicates much lower activity of heavy vehicles, especially in the first months of the pandemic. The survey found that, in 2020, the daily number of heavy vehicles on the road decreased by about 20.000 vehicles, compared to the previous year (GDDKiA, 2020).

References:

- Bagiński, K. 2020. Coronavirus and the labor market. Not all industries have lost out on the pandemic. Retrieved from: [https:// www.money.pl/ gospodarka/koronawirus-arynek-pracy-nie-wszystkie-branze-stracily-na-epidemii-sa-i-takie-ktore-szukaja-pracownikow-6494522090407553a.html](https://www.money.pl/gospodarka/koronawirus-arynek-pracy-nie-wszystkie-branze-stracily-na-epidemii-sa-i-takie-ktore-szukaja-pracownikow-6494522090407553a.html).
- Główny Inspektorat Transportu Drogowego (GITD). 2018. Raport Raport 2018. Główny Urząd Statystyczny (GUS).
- Główny Urząd Statystyczny GUS. 2021. The socio-economic situation of the country in 2020, Warszawa.
- GDDKiA. 2020. Traffic on national roads during the epidemic. Data analysis from the beginning of the epidemic Warszawa: GDDKiA. Retrieved from: www.gddkia.gov.pl/pl/a/37675/Ruch-na-drogach-krajowych-w-czasie-epidemii-Analiza-danych-od-poczatku-epidemii.
- Human Capital Trends 2019, Deloitte. 2019. Retrieved from: <https://iru.org>.
- Levy, F., Murnane, R. 2004. The New Division Of Labor. How Computers Are Creating The Next Job Market. Princeton; L. Dormehl, The Formula, 225-226.
- Podsiadły, W. 2018. The last straight of the autonomous vehicle race. Retrieved from: <http://www.log24.pl>.
- Drivers' labor market in Poland. 2016. PwC Advisory Report. <https://Transjobs.eu>.
- Transport of the future. 2019. Report on the prospects for the development of road transport in Poland in 2020-2030. PwC Advisory Report.
- Świtała, M., Łukasiewicz, A. 2021. Road freight transport companies facing the COVID-19 pandemic. *Gospodarka Materiałowa i Logistyka. Material Economy and Logistics Journal*, No 5/2021, p. 16.
- Wawrzonek, A. 2020. The emerging labor market - the realities and challenges of the post-pandemic reality. *Educational Studies* No 58/2020, p. 132.

Will robots really steal our jobs? An international analysis of the potential long term impact of automation. PwC, 2016.

Earnings of professional drivers in Poland. 2021. Raport. Polish Road Transport Institute, p. 21.