
The Impact of Covid-19 Pandemic on the Situation of Micro, Small, and Medium Sized Enterprises in the Transport Sector in Poland

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Abstract:

Purpose: The purpose of this article is to analyze the impact of the Covid-19 pandemic on the situation of MSMEs in the transportation sector. To achieve the goal, the following research questions were posed: 1) what sources of funding were most often used by entrepreneurs to mitigate the impact of pandemic Covid-19? 2) what forms of support were most frequently used by entrepreneurs during the Covid 19 pandemic? 3) what are the biggest risks for MSMEs in the transportation sector? 4) What was the impact of the Covid-19 pandemic on the business of MSMEs in the transportation sector?

Design/Methodology/Approach: In order to realize the goal, set in the introduction and answer the research questions, the results of a survey conducted using the CATI method on a sample of 400 randomly selected micro, small and medium-sized enterprises operating in the transport and storage sector from across Poland were used. The proprietary survey was conducted between December 2021 and February 2022.

Findings: Within the framework of the research conducted, it is possible to list the most important effects of the Covid-19 pandemic affecting the situations of MSMEs in the transportation sector, these are: changes in the business environment of companies (functioning of markets, effects of restrictions and lockdowns); changes in the business model (response to a decline in demand, disrupted supply chains), issues of resilience of companies to changing economic conditions (e.g., maintaining liquidity), and acceleration of digital transformation (among other things, posting employees to work remotely).

Practical Implications: This study can provide important information in the policy-making process, both in regulatory aspects and in providing liquidity of operation for micro, small and medium-sized enterprises (MSMEs) in the transportation sector. It can also provide guidance for the future in terms of evaluating the use of applied relief instruments in subsequent crises caused by similar phenomena as the Covid-19 pandemic. In addition, the prepared article adds to the literature on the impact of the Covid-19 pandemic on the situation of MSMEs in the transportation sector.

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Originality value: *The article contains the results of primary research on the impact of pandemic Covid-19 on the situation of micro, small and medium enterprises in the transportation sector. The literature lacks considerations relating to the impact of pandemic Covid-19 on MSMEs in the transportation sector.*

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JEL codes: *R49, L91.*

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1. Introduction

Micro, small and medium-sized enterprises (MSMEs) are considered one of the main drivers of economic growth in any country (Umiyati and Zulfanetti, 2021). According to the Polish Agency for Enterprise Development (Report on the State of the SME Sector in Poland, 2023), in 2023 there were 2.36 million enterprises in Poland, 99.8% of which were MSMEs.

In contrast, the service sector, which can include transportation and warehousing, accounted for 53.9% of all enterprises. The transportation and warehousing sector, which is the subject of the above article's research, accounted for nearly 80,000 enterprises. It is also important to point out the share of MSMEs in the creation of Polish GDP, which amounted to 43.6%. The MSMEs sector is understood as economic units that employ less than 250 employees and have an annual turnover of no more than the equivalent of €50 million or total assets of no more than €43 million (Vargas, 2020).

Unfortunately, recent years have seen an accumulation of challenges for the transportation sector. First, the Covid-19 pandemic, which resulted in, among other things, restrictions on mobility. Second, the entry into force of regulations related to the mobility package gradually reduced the efficiency of freight work and generated cost increases.

Third, the economic impact of the pandemic, including the still-perceptible shortage of electronic components manufactured in Asia, reduced production in European industries, including one of the transport industry's main customers and also suppliers, the automotive industry. Fourth, Russia's invasion of Ukraine caused economic and political consequences that temporarily, and drastically, reduced the

supply of energy raw materials, generating an increase in fuel prices and a decrease in production in European industries dependent on these raw materials (Road Transport in Poland 2023; 2023; Kadlubek *et al.*, 2022).

According to data from PWC (PWC, 2020), in Poland, nearly 90% of companies reported business disruptions due to isolation and changes in customer behavior during the Covid-19 pandemic. One of the first industries in the economy on which a number of restrictions were imposed to limit the spread of the threat was the transport sector.

The purpose of this article is to analyze the impact of the Covid-19 pandemic on the situation of MSMEs in the transportation sector. To achieve the above objective, the following research questions were posed:

- 1) *what sources of funding were most often used by entrepreneurs to mitigate the impact of pandemic Covid-19?*
- 2) *what forms of support were most often used by entrepreneurs during the Covid 19 pandemic?*
- 3) *what are the biggest risks for MSMEs in the transportation sector?*
- 4) *what was the impact of the Covid-19 pandemic on the business of MSMEs in the transportation sector?*

The realization of the stated objective and the answers to the research questions were made on the basis of a critical analysis of the source literature, a comparative analysis of found data, and using the descriptive method with elements of deductive reasoning. To collect primary data, a direct survey method was used, specifically the CATI technique.

A literature review was conducted using academic literature, complementary literature and databases on policy measures related to the COVID-19 pandemic in the transportation sector.

The analysis carried out concerned only a certain research group, and therefore the results obtained should not be applied to a larger or entire collective. On the other hand, the results obtained may become a contribution to further research.

2. Data and Methods

Early studies of the COVID-19 pandemic showed that the situation was unfolding without a predictable end, and fear and uncertainty were evident in the actions of economies and entire societies (Mollenkopf *et al.*, 2020; Pedersen *et al.*, 2020; Rikhardsson *et al.*, 2020; Grima *et al.*, 2020; Khan *et al.*, 2020).

Covid-19 has become one of the most devastating pandemics in modern world history, as evidenced by the number of casualties and social and economic losses (Sun *et al.*, 2021). Many researchers point out that in addition to its impact on the

decline in public health, the Covid-19 pandemic indirectly caused a global economic downturn. One of the hallmarks of the socioeconomic crisis caused by Covid-19 was an immediate slowdown in production and consumption.

Manifested by falling demand, disruptions in supply chains, cancellation of export orders and shortages of raw materials (Shafi *et al.*, 2020). Almost immediately after the outbreak of the pandemic, restrictions were placed on both international and domestic transportation. City and national governments were forced to act quickly by introducing restrictions related to the movement ban. Very often without considering the economic and social consequences (Hale *et al.*, 2020).

In order to slow the spread of the virus, most countries in Europe adopted measures to limit social contact in daily life. These measures affected transportation networks in general and mobility behavior in particular (Bucsky, 2020; de Haas *et al.*, 2020; Rasca *et al.*, 2021; Zhang *et al.*, 2021).

The research gap regarding the impact of the Covid-19 pandemic on micro, small and medium-sized enterprises in the transportation sector prompted the authors to undertake research in this area.

3. Results and Discussion

Among the surveyed enterprises, taking into account the number of employees, the largest group were small enterprises (56%), followed by micro enterprises (27%), medium-sized enterprises accounted for 17%.

Most surveyed enterprises indicated that their situation compared to the state before the Covid-19 pandemic has not changed (55%). On a positive note, 21% of respondents considered their situation to be good, while 14% considered their situation to be “rather bad” (Table 1).

Table 1. Company's situation compared to the state before the Covid-19 pandemic

Company situation	Share in %
very bad	5
rather bad	14
neither good nor bad	55
rather good	21
very good	2
difficult to say	3

Source: Own elaboration based on conducted research.

Another question examined was how did the Covid-19 pandemic affect the company's operations? The most important effects were the abandonment of investments, downsizing and reduction in working hours (more on Table 2).

Table 2. The impact of the Covid-19 pandemic on the company's operations (multiple answers can be selected)

The effect of the Covid-19 pandemic	Share in %
abandonment of investments	41
layoffs of employees	37
reduction of working hours	36
closure of a division of the company	33
reduction of salaries	32
sending employees on unpaid leave	30
delays in payment of salaries	14
change of business profile	2

Source: Own elaboration based on conducted research.

In the next question, the respondents were asked to indicate the sources of funding that were used to mitigate the negative effects of the Covid-19 pandemic. Among the most common were: equity capital (44%) and grants from the state budget (42%). Under "other" (2%), the surveyed entrepreneurs mentioned: assistance from the City Council, the Social Insurance Institution (ZUS), and obtaining additional sources of income.

The next issue they decided to examine was to indicate the most frequently used forms of support. In this case, the most frequently used were Social Security exemption (44%) and parking benefit (38%). It is noteworthy that 11% of respondents indicated that they did not use any forms of support (Table 3).

Table 3. What forms of support did your company use during the Covid-19 pandemic? (multiple answers possible)

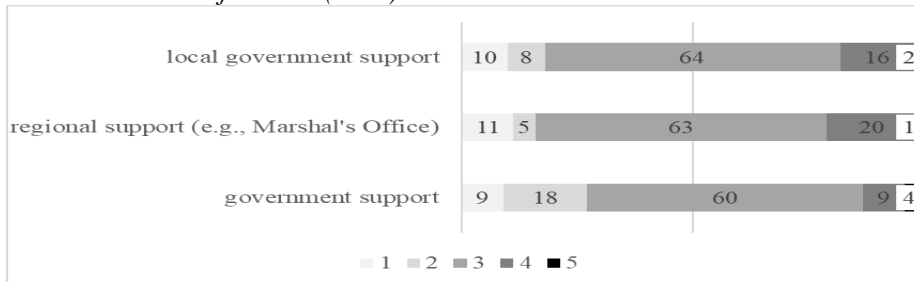
Type of support	Share in %
exemption from social security contributions	44
withholding benefit	38
financial resources of the Marshal's Office	30
tax deferral	28
loan from the Labor Office	26
subsidy for protection of workplaces	25
subsidization of salaries from the Labor Office	21
liquidity assistance from the BGK	24
assistance offered by the City/Municipality	21
the company did not use any forms of support	11

Source: Own elaboration based on conducted research.

The next part of the survey asked the question: how do they rate the level of support offered by state institutions during the Covid-19 pandemic? State institutions were divided into: local, regional and governmental. In each category, the vast majority of surveyed entrepreneurs indicated that it was difficult to clearly assess the level of support offered by state institutions. Local and regional government bodies were

better rated as support at a good level (16% and 20%, respectively), while government support was indicated as good by only 9% of respondents (Figure 1).

Figure 1. How would you rate the level of support by state institutions during the pandemic on a scale of 1 to 5? (in %)

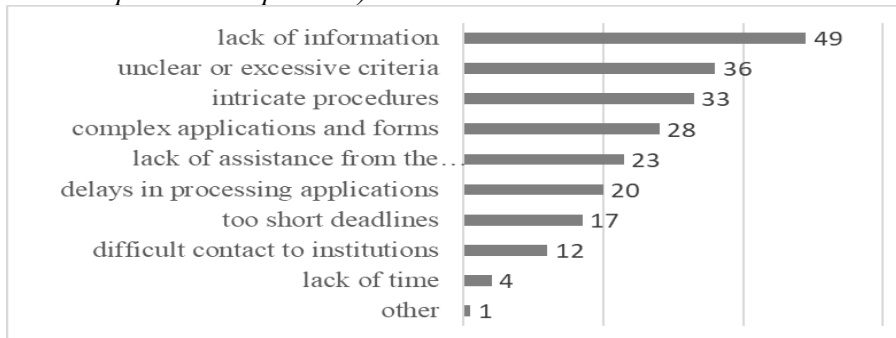


Note: 1 - insufficient or none, 2 - sufficient, 3 - hard to say, 4 - good, 5 - high

Source: Own elaboration based on conducted research.

In the next part of the interview, the following question was asked: what makes it most difficult to obtain funding from local and state government sources? The vast majority of respondents indicated a lack of information about funding opportunities (49%), as well as unclear criteria (36%), or convoluted procedures (33%). Such responses may reflect the difficult contact between MSMEs from the transport sector and local and state government institutions (Figure 2).

Figure 2. What hinders obtaining financial resources from local and state sources? (in % – multiple answers possible)

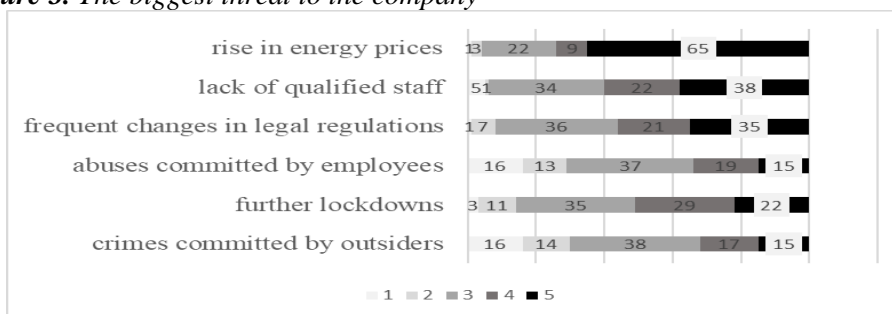


Source: Own elaboration based on conducted research.

One of the key effects of the pandemic was the problem of maintaining business continuity with limited opportunities to generate existing revenues (Davahli *et al.*, 2020). This is confirmed by the results of our own research, where surveyed entrepreneurs cited a decline in the number of customers (52%), payment bottlenecks (44%), and loss of liquidity (33%) as the most severe effects of Covid-19.

Another question that was attempted to explore was the answer to the question: what is the biggest threat to the company's operations in the future? Most respondents cited rising energy prices as the biggest threat. Such a threat was indicated by 66% of respondents, considering it very high. Among the next greatest threats were lack of qualified employees and frequent changes in legislation (Figure 3).

Figure 3. The biggest threat to the company



Note: 1 - no threat, 2 - low, 3 - neutral, 4 - high, 5 - very high

Source: Own elaboration based on conducted research.

Confirmation of the above research can be found in the Dun and Bradstreet report (Dun and Bradstreet, 2023), which indicates that companies in Poland cite high energy costs (40%) as the biggest threat to the survival of their businesses, while overall, a third (33%) of global respondents identified rising energy prices as the main threat to their companies.

4. Conclusions

The considerations and research carried out have been devoted to MSMEs, which, on the one hand, are exposed to a greater impact of the negative effects of the pandemic, while on the other hand, due to their high operational flexibility and speed of response to change, they are often better able to cope with new challenges.

The COVID-19 pandemic had a far-reaching impact on the transportation sector, generating changes in consumer preferences and behaviour and forcing transportation companies to adapt to new conditions. However, the sector has demonstrated flexibility and the ability to adapt quickly, introducing innovations and new practices to minimize the risks associated with the pandemic. As the world gradually returns to normalcy, the transportation sector must continue to adapt to the changing conditions, considering both health and economic issues, to ensure effective operations in the future.

The research objective set in the introduction, allowed us to identify the most important conclusions of the study:

- enterprises to mitigate the negative effects of the Covid-19 pandemic most often used their own resources;
- the most frequently used form of crisis shield support was exemption from Social Security contributions;
- government support during the pandemic is better rated than local government assistance;
- the biggest threat to the operations of companies in the transportation sector is the increase in the price of electricity, gas and other fuels;
- the biggest impact of restrictions related to the Covid-19 pandemic affecting the operation of transport sector SMEs was a decrease in the number of customers and loss of liquidity.

In conclusion, the research conducted can list the most important effects of the Covid-19 pandemic affecting the situations of SME companies in the transport sector, these are, changes in the business environment of companies (the functioning of markets, the effects of restrictions and lockdowns); changes in the business model (response to a decline in demand, broken supply chains), issues of resilience of companies to changing economic conditions (e.g., maintaining liquidity), and acceleration of digital transformation (among other things, posting employees to work remotely).

The article lays the groundwork for further research on the situation of MSMEs in the transportation sector in the post-covid period, which includes the emergence of further risks, such as Russia's attack on Ukraine, among others.

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