

ANALYSIS OF THE LOGISTICS MARKET AND MANAGEMENT OF LOGISTICS ACTIVITIES IN ROMANIA DURING THE PANDEMIC

Dan MIRICESCU*, Elida-Tomiță TODĂRIȚĂ**

****“Lucian Blaga” University of Sibiu, Romania**

****“Nicolae Balcescu” Land Forces Academy, Sibiu, Romania**

dan.miricescu@ulbsibiu.ro, elida_todarita@yahoo.com

Abstract: Over the past few years, logistics has undergone important developments that have seen it evolve from a support function within a company to a cross-functional, cross-company function. The high complexity of the logistics function is increasingly leading industrial and commercial companies to outsource their logistics, thus creating a market for logistics services. Logistics providers and client companies are classified according to the extent to which the logistics function is outsourced or taken over by a third party in the following categories: “1 PL”, “2 PL”, “3 PL”, “4 PL”. The present paper is intended to be an analysis looking at the logistics market and the management of logistics activities in Romania during the crisis that brought major changes in all areas of activity, namely the Covid-19 pandemic. The general objective of this study is to analyze the logistics market in Romania and the effects caused by the pandemic. A questionnaire based on a quantitative analysis was used as a working tool. The questionnaire was distributed directly (online) using the Google Forms platform. The target group consisted of companies in this field of activity, and the actual completion was carried out by 70 senior employees of several logistics companies operating in Romania.

Keywords: logistics management, logistics market, pandemic, crisis, resilience

1. Introduction

In the literature, logistics is considered to be an essential area of activity for modern companies. In the last 15-20 years the term logistics has been increasingly referred to, and the field has undergone truly dramatic and significant changes (shifting from a focus on physical distribution to an analysis of the entire logistics system). Logistics has thus moved from being a source of physical distribution operations to a source of added value and competitive advantage [1].

Today, the logistics sector has developed into a business sector in its own right, with this vigorous boom being mainly due to the outsourcing of logistics by companies with a core production profile and the increased

complexity of transport and external logistics activities (storage, handling, transfer solutions). In practice, logistics has become a new economic field which, in addition to transport, includes warehousing, handling, product management, IT services and consultancy [2]. This significant development also faded in Romania, like other markets, in 2020, when the Covid-19 pandemic emerged. During the pandemic, some of the companies reduced their orders, while suppliers did the same, but often to a much greater extent, as they anticipated an even greater reduction in orders. However, there was unprecedented congestion in ports and serious transport problems (on the one hand the temporary

blockage of the Suez Canal at the end of March 2021 and on the other the fact that many containers were not positioned where they were needed to transport goods). As a result, the maritime freight sector is also facing profound and long-lasting challenges. Logistics experts agree that tensions in global supply chains are far from over. Returning to pre-pandemic flows resulting from supply chain disruptions will be a long process. The pandemic has proven to cause further disruption (in June 2021, China decided to temporarily close the third largest container terminal in the world, Shenzhen). All this resulted in weeks of delayed deliveries and further increases in delivery costs to both Europe and the US [3]. Major cost increases in logistics supply chains also fuelled inflationary pressures, further exacerbating economic difficulties during this period of industrial recovery. However, the logistics and transport industry is on an upward trend in Romania amid exploding demand in eCommerce, despite inflation and the geopolitical context, data from DSV Solutions, the third largest global provider of transport and logistics services, show [4]. After two years of slow growth during the pandemic, the local transport and logistics market saw accelerated growth in demand in 2022 for services across all modes of transport (road, air, sea and rail) and for warehousing services in logistics centers. Thus, logistics remains a cross-functional function in close relation with other functions of a company, being an important element in managing costs and generating competitive advantage. It is logistics that integrates the control of the movement of flows by managing them optimally into a company's overall strategy [5]. Minimizing inventory, both in warehouses and in production in progress, reducing transfer distances, eliminating bottlenecks and waiting times, combined with cost reduction in the area of supply and delivery, offer extremely good solutions for cost reduction and a

significant increase in profit margins, ultimately generating outstanding performance competencies [6].

2. General elements of research methodology

The general objective of this research is to analyze the logistics market in Romania and the effects caused by the Covid-19 pandemic. As secondary objectives we list:

- analysis of infrastructure elements and their influences on logistics;
- analysis of companies' financial indicators and the influence of the pandemic on them (profit, sales volumes, etc.);
- analysis of how the future is perceived in terms of the pandemic as a crisis with significant consequences.

A questionnaire was used as a working tool and the analysis was quantitative. This questionnaire was distributed directly (online) using the Google Forms platform. The questionnaire was composed of 15 questions, structured in 2 sections and was completed between May and July 2021 by 70 respondents from various logistics companies with branches in Romania. They were asked to answer a set of questions about their company's activity and future trends as well as how they think the pandemic has affected their work and the market position of their company.

3. Analysis of the main results on the management of logistics activities in Romanian companies

The structure of the sample surveyed is as follows: 52 of the respondents (74.3% of the total) occupy a department manager position; 3 of them, representing 4.3% of the total respondents occupy a general manager position; and the remaining 15 respondents (21.4%) occupy another position subordinate to that of general manager or department manager.

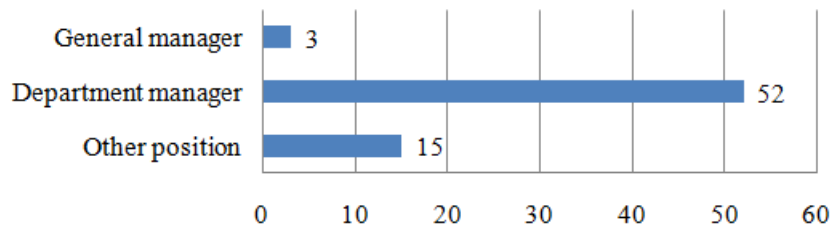


Figure 1: Respondents' positions
Source: own creation

Almost half of the respondents (48.6% representing 34 respondents) have been with the organization for at least 5 years. 21 respondents representing 30% of the total

have between 3 and 5 years' experience, and 15 respondents representing 21.4% have between 0 and 3 years' experience.

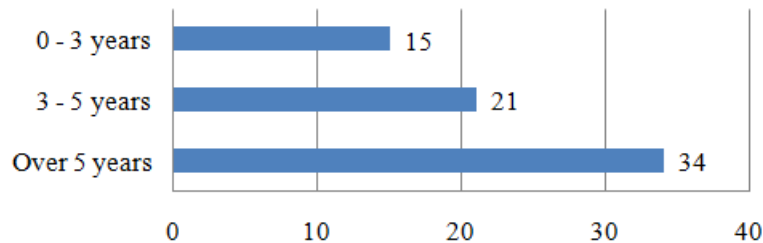


Figure 2: Respondents' longevity in the company
Source: own creation

57.1% of the responses were received from respondents representing companies specialized in logistics, but for a more comprehensive analysis, responses were also taken into account from representatives of companies operating in the field of services, production and logistics departments (30 respondents, representing 42.9%).

More than half of the respondents (41 representing 58.6% of the total) work in companies with a turnover of up to EUR 50 million, 27 respondents representing 38.6%

work in companies with a turnover between EUR 50 and 150 million, and 22.9% of all respondents work in companies with a turnover of more than EUR 150 million.

One of the important questions was about the volume of the company's business. Thus, during the pandemic, more than half of the respondents (57.1%) stated that the workload increased, only 11.4% stated that during the pandemic the workload decreased, the remaining 31.4% of the respondents stated that the workload in their company remained unchanged.

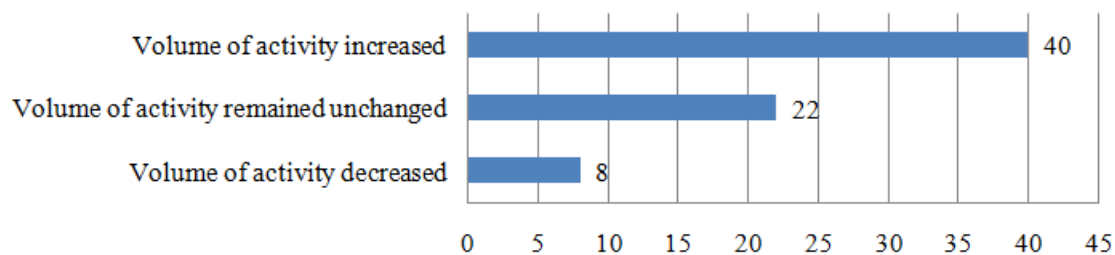


Figure 3: The volume of activity of the firms in which the respondents work
Source: own creation

As for profit during the pandemic period, 42% of respondents said there was no major change. 41.4% of respondents stated that profit increased directly in proportion to the volume of business or as a result of

increased demand and opportunities for operating prices. 11 respondents representing 15.7% of all respondents stated that profit decreased.

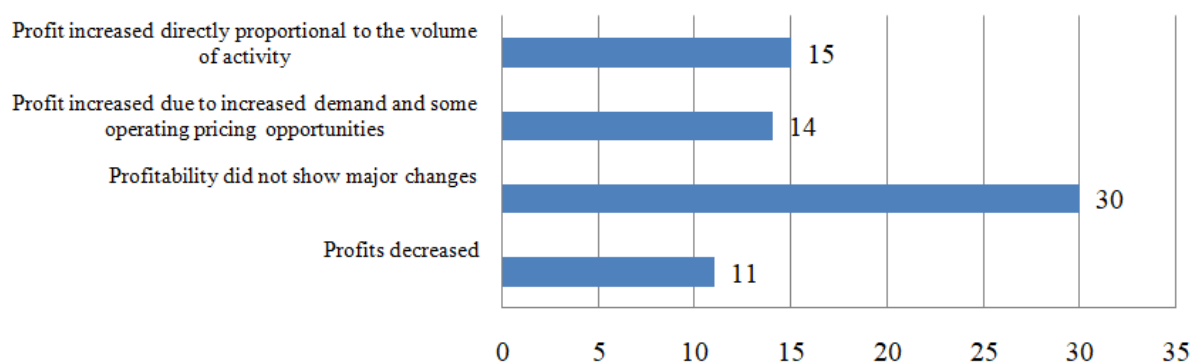


Figure 4: Profits
Source: own creation

Respondents were asked to mention 2 challenges encountered during the pandemic. The most common responses were: lack of qualified staff, increased labor costs, increased operating times due to health measures imposed, also increased turnaround times due to border closures within Europe but also in other parts of the world.

In the period 2020 - 2021 half of the

respondents (35) stated that there were no changes in terms of hiring/layoffs. 29 respondents representing 41.4% stated that there were hirings during this period.

Also 2 respondents representing 2.9% of all respondents stated that redundancies had been made in their company and 6 respondents representing 8.6% of all respondents stated that some employees had been sent in technical unemployment.

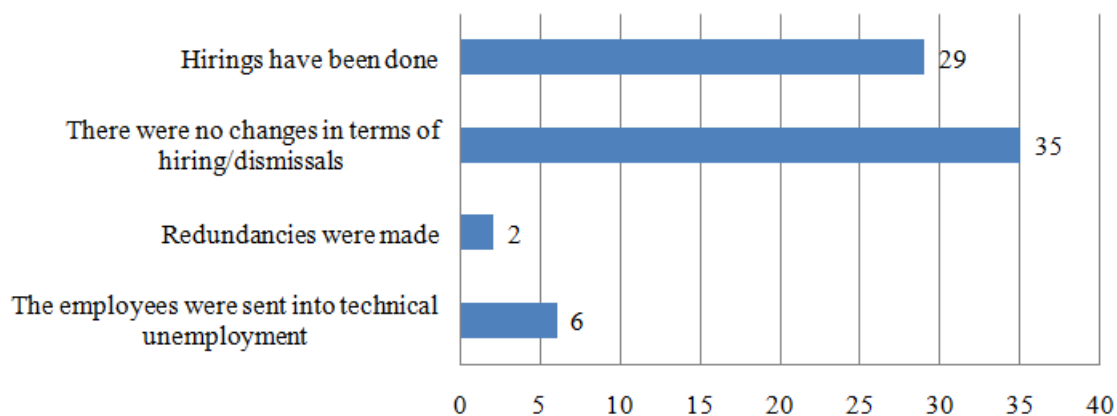


Figure 5: Hiring/firing due to the economic downturn
Source: own creation

In terms of the share of activities during this period, slightly more than half, 37 respondents representing 52.9% of the total respondents, stated that they had served predominantly trade and retail activities. 20 respondents representing 28.6% of the total respondents stated that they had served predominantly manufacturing activities, and 14 respondents representing 20% of the total respondents stated that they had served predominantly service activities. In terms of the number of clients during this period 47.1% of respondents stated that the number of clients had stagnated, 45.7% stated that the number of clients had stagnated. Very few respondents (8.6%) stated that the number of customers during this period decreased.

As regards the prices charged during this period, 54.3% of respondents said that the prices charged in their company were higher than in the previous period. However, 44.3% of respondents said that prices during this period were staying the same. Surprisingly, there was only one respondent who said that operating prices were lower.

Respondents had to give a score from 1 to 5 (1 the most unimportant and 5 the most important) on 3 infrastructure issues. Regarding the lack of adequate infrastructure (basically the lack of very well developed motorways) just over half, i.e. 36, gave this issue a score of 5 (figure

6). A score of 4 was given by 19 respondents. This means that 78.6% of respondents are dissatisfied with inadequate road infrastructure, which leads to additional transport times, additional transport-related costs and reduced operating speeds. The situation is no better for rail transport, with 44.3% of responses in the critical area and a significant increase to 81.4% if the responses in the median area are included (Figure 6). Following various analyses, it was found that the average speed of freight trains in Romania in the period under analysis (2020 - 2022) is in the range of 15 - 20 km/h, which is totally unacceptable for logistics operators and automotive manufacturers, making the transit distance between the port of Constanța and Curtici (the country's western border) more than seven days.

The responses to the intermodal transfer areas are not encouraging either, with 54.3% of the responses being in the critical zone (scores of 4 and 5).

The responses are not surprising and they are directly linked to the other ones concerning infrastructure, with intermodal terminals practically linking road, rail or sea [7]. In Romania, 26 intermodal terminals of CFR Cargo are reported in 2020, of which 12 are inactive and another 13 privately operated terminals, which for freight transit in Romania is quite low [8].

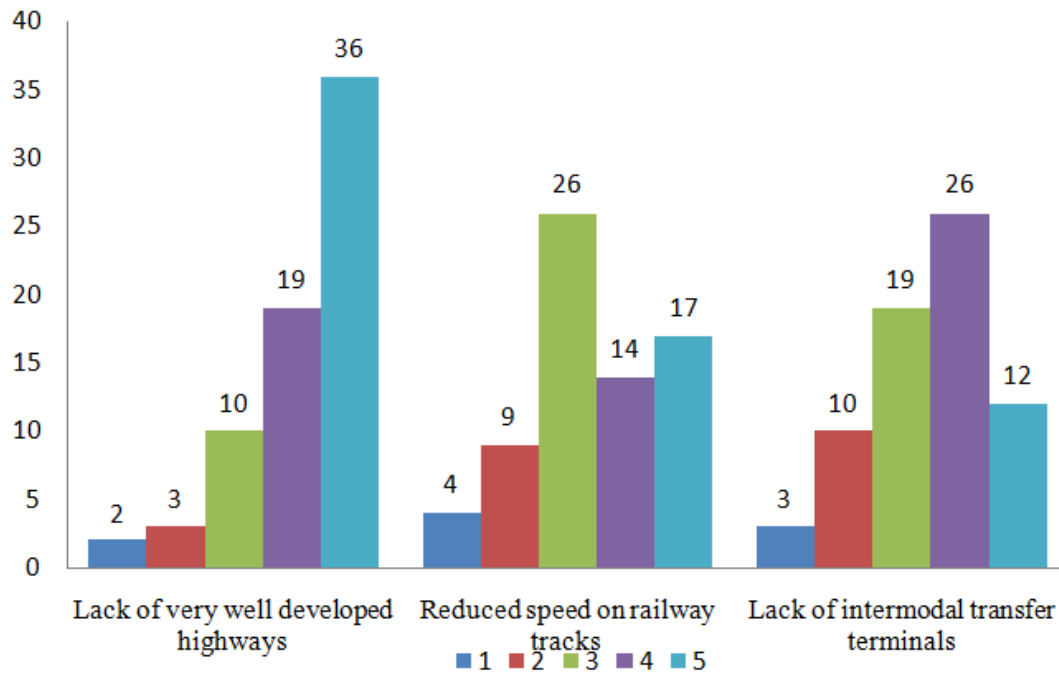


Figure 6: Infrastructure issues
Source: own creation

The respondents' outlook for the development of their organization is positive.

The perception of the company's activity in the coming period, from the perspective of the respondents, is as follows: 38 respondents (54.3%) stated that their company will grow, 31 respondents (44.3%) stated that their company's activity will remain unchanged and only one respondent stated that their company will reduce its activity.

As the study was conducted within the pandemic period, the perspective on the evolution of organizations in the following period was also explored in terms of the effects of restrictions on the organizations surveyed. In terms of the impact that the

SARS-CoV-2 virus may still have on their organization, 55.7% of the respondents stated that it may still affect their organization to a small extent, 34.3% stated that this virus may no longer affect their organization and 10% stated that this virus may still affect their organization to a large extent.

Respondents also had very much as a response option but none of them stated this (Figure 7).

From the post-pandemic perspective, we believe that the major effects of the pandemic on the logistics sector were seen in the early period of the restrictions, and that the turbulence created by these restrictions had a major effect on all organizations.

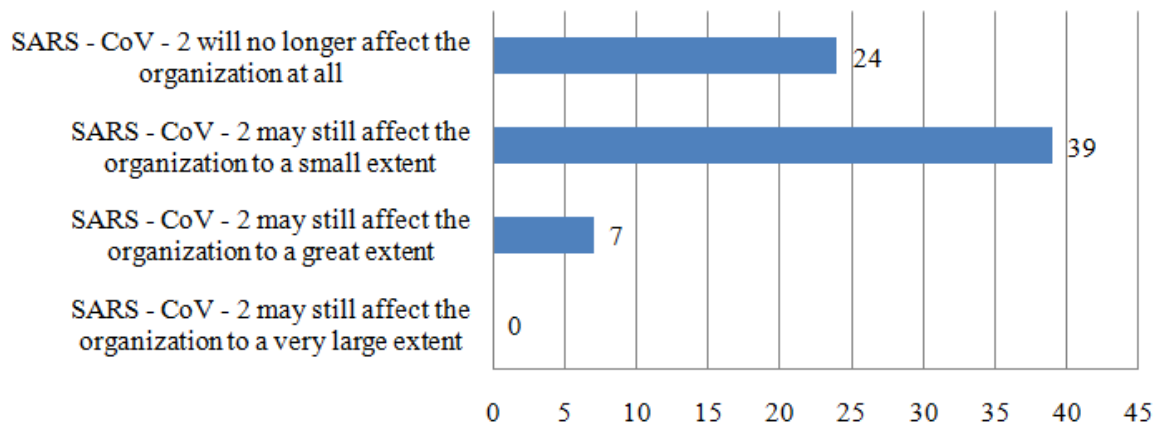


Figure 7: Chart on possible future influences of SARS - CoV- 2
Source: own creation

From the perspective strictly of the logistics sector firms (3PLs offering integrated services to partners), those that were able to regroup and reorient themselves quickly, adapting their volumes quickly and finding adequate resources, they made massive use of the pandemic period, being among the sectors that, after this period, experienced increasing volumes and profit margins.

4. Conclusions

The analysis shows that the logistics sector did not suffer as much as other sectors in the period January 2020 - June 2021 due to the Covid-19 pandemic that had and still has a hard effect on other sectors. From the employees' perspective the workload has increased more than the profits of the companies they work for, which is due to the challenges they have been subjected to as well as due to the health measures imposed, border closures, etc.

Throughout this period it can be seen that there have been few people made redundant or put on technical unemployment in this area, which is gratifying.

Prices charged by logistics operators have

in most cases been higher or stagnated. In terms of infrastructure, the main problem is the lack of motorways linking Romania to all border points. As for the number of customers, it has not decreased; it has either stagnated or increased. Also with regard to customers, the analysis showed that the most important factors in choosing a logistics provider are the respect of delivery deadlines and the reliability of the services offered. The price of services is only third, followed by other factors such as the location of the supplier, the performance of the supplier.

Most employees are optimistic about the future of their company, with the rest believing the company will continue to operate as it is. In terms of the impact of the virus on their company, a very large number of employees believe that it can no longer affect their company, or can affect it only to a very limited extent. None of the respondents stated that this virus could still drastically affect the business of their company.

References List

- [1] Felea M. & Cristinel V. Logistica și distribuția mărfurilor. Note de curs. [online] Available at: <https://www.coursehero.com/file/28999151/carte-logisticapdf/>, accessed on 01.04.2023.
- [2] Burda A. Logistica și distribuția mărfurilor, Editura Pro Universitatea, 2018. p. 151.
- [3] <https://traficmedia.ro/china-inchide-un-alt-port-supply-chain-ul-maritim-aproape-blocat/>, accessed on 01.04.2023.
- [4] Industria de transport și logistică din România crește cu cea mai mare viteză, după pandemie, în ciuda inflației și a contextului geopolitic, iulie 2022, <https://www.economistul.ro/stiri-si-analize-business/dvs-solutions-industria-de-transport-si-logistica-din-romania-creste-cu-cea-mai-mare-viteza-dupa-pandemie-in-ciuda-inflatiei-si-a-contextului-geopolitic-41588/>, accessed on 01.04.2023.
- [5] Moser T., Dumitrașcu D. & Miricescu D. Logistics management – Particularities and Tendencies, Growing organizational competitiveness and costumer satisfaction through efficient management of logistics activities, LAP Lambert Academic Publishing, 2018.
- [6] Bălan C. Logistica, Ediția a III-a revăzută și adăugită, Editura Uranus, București, 2007.
- [7] Conceptul de terminal multimodal și modul în care este inclus în documentele strategice și de programare, Agenția pentru dezvoltare Regională Centru, Alba Iulia, 27 iunie 2019, <http://regio-adrcentru.ro/wp-content/uploads/2019/06/Prezentare-concept-multimodal.pdf>, accessed on 02.04.2023.
- [8] Raportul special “Transportul intermodal de marfă” 8/2023, Raport special al Curții de Conturi Europene prezentat în temeiul articolului 287 al. (4) al doilea paragraf TFUE, <https://op.europa.eu/webpub/eca/special-reports/intermodal-freight-transport-08-2023/ro/index.html>, accessed on 02.04.2023.