Volume 11/2023 ISSN 2344-102X
Issue 1 / **February** 2023 ISSN-L 2344-102X

AN OUTLOOK OF FREIGHT ROAD TRANSPORT IN ROMANIA INDUSTRY

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Abstract
The road transport sector is dominated by SMEs. While some companies are definitely leading the way in terms of circularity, many others are still classic SMEs with linear business strategies. Traditional SMEs have new opportunities and challenges as they embrace the green shift. They require information, direction, and technical assistance to get started on the path to sustainability. Shippers have faced uncertainty in transferring goods as a result of the health crisis's limitations and bottlenecks. The supply-demand imbalance, as well as a shortage of long-distance and last-mile fulfillment service capacity, have disrupted logistics networks, impeding the expansion of the freight transport business. Because of the polluting character of this industry, this study focuses on sustainability in Romanian road transport SMEs. This study will look into which tactics are effective in assisting SMEs to become more sustainable. According to the research, the reason for corporations to engage in corporate sustainability may be competitiveness, legitimacy, and environmental responsibility.

Key words: *SMEs; road freight transport; sustainability strategies; competitiveness; legitimacy; environmental responsibility*

JEL Classification: *L91; M40; F23*

I. INTRODUCTION

Within a country, road transport is the main method of transporting goods from one place to another, especially when distances are long. In Romania, almost half of all goods are transported by road, followed by maritime, rail, inland waterways and air, which ranks the lowest due to high costs.

The freight transportation sector has been growing for ten years, but the pandemic has halted this development and forced many small and medium-sized businesses to cease their activities from 2020. Romanian companies were no exception: between 2019 and 2020, the volume of cargo transported abroad by road fell by almost 13%. Thus, if a year before the pandemic, according to Eurostat, Romania recorded an international traffic volume of 20.41 million TKM (tons/km), this would drop to 17.833 million TKM (tons/km) in 2020.

According to the National Institute of Statistics (NIS), the volume of national transport increased last year by 16% compared to 2020, although the situation is improving. High fuel prices due to the outbreak of the military crisis in Eastern Europe, long payment terms of up to four months, the crisis of professional drivers, the significant increase in RCA policies, the lack of technology used by contractors in the sector and weak negotiating power with customers are some of the reasons. Many small haulage firms tried to use bank loans to minimise expenses during the epidemic, but many either failed to comply with banking regulations or national financing schemes or were disadvantaged in the long run. During the epidemic, several small road haulage companies tried to use bank loans to minimise expenditure, but many of them either failed to comply with bank regulations or national financing schemes or were disadvantaged in the long term. The best thing that happened during the pandemic was that the state deferred payments to drivers.

The transport sector is significantly impacted by the COVID-19 epidemic, as European supply chains are interconnected. These connections are maintained by a vast network of freight services. Disruptions in these goods transfers have resulted in considerable economic loss. The airline industry has also been severely impacted by the pandemic. To offset the impact of COVID-19, the European Commission has suggested specific legislation exempting airlines from the duty to use slots under EU law for a limited time. If this interim solution is implemented, airlines will be able to adapt their capacity to account for the decreased demand induced by the epidemic. Simultaneously, land-based supply chains have been badly harmed as a result of entrance prohibitions at land borders and limitations on drivers moving between Member States. This affects all things, but especially crucial supplies and perishable goods, and the implications are swift and severe because the vast majority of businesses in this sector are small and medium-sized enterprises (SMEs). Regardless of mode of transport, the goal is to apply methods to assure economic continuity, the flow of commodities and the supply chain, necessary journeys, the functioning of the internal market, and transport safety (Antonescu, 2020).

DOI: 10.4316/EJAFB.2023.11112

Volume 11/2023 ISSN 2344-102X
Issue 1 / **February** 2023 ISSN-L 2344-102X

SMEs contribute enough to direct and indirect environmental variables to be regarded a substantial component of the problem and, consequently, of the solution. SMEs account for over 99% of all enterprises in Europe and employ nearly two-thirds (65%) of all workers (Lombrana et al., 2020). As indirect drivers of global supply chains, it is estimated that SMEs generate up to 60-70% of total world pollution. Indeed, the EU transport sector is responsible for a significant share of total greenhouse gas emissions. It is estimated that road transport accounts for 72% of overall CO2 emissions from transportation activities. According to the Action Plan for the Implementation of Intelligent Transport Systems in Europe, road congestion affects 10% of the road network and costs the EU 0.9-1.5% of GDP annually. Rail transportation is thought to be the least polluting way of transportation. Thus, road transport accounts for around 72% of total CO2 emissions, whereas sea transport accounts for 14%, civil aviation accounts for 13.4%, and rail transport accounts for only 0.4% (Statistical Pocket Book 2021). To minimize CO2 emissions, efforts are being made at the European level to replace road transport with rail, with a focus on integrated mobility. A more worrying aspect of this sector is that transport emissions are growing year on year, accounting for around a quarter of total EU greenhouse gas emissions, making it one of the main challenges to the EU's overall decarbonisation goals.

External factors such as a lack of regulation and direction, as well as internal factors such as a lack of money and knowledge, can all contribute to SMEs' failure to make this transformation (Straver, 2021; Sustentia, 2019). In order to meet the EU's goals, SMEs must be included in the transition to more sustainable development.

II. FREIGHT ROAD TRANSPORT IN ROMANIA INDUSTRY

SMEs have gone bankrupt as a result of low demand and an inability to manage their finances during a period of declining demand for freight and road transport.

Based on figures issued by the National Bank of Romania (NBR, 2020), the current account deficit was EUR 5.8 billion in January-August 2020, a decrease of 18% over the same period in 2019. In January-August 2020, Romania's trade balance was partially offset by a surplus in services trade. Romania exported 15.1 billion EUR in services and bought 9.2 billion EUR in services. As a result, Romania reported a trade surplus in services of EUR 5.9 billion in the first eight months of the year, an increase of 9% over the same time previous year.

Figure 1 illustrates the many structural factors affecting Romania's external position. Thus, as far as the transport sector is concerned, the biggest challenge facing the external balance of payments and the main weaknesses of the national economy include investment, transport infrastructure or access to skilled labour. One of the factors' eroding productivity is the state of the national road network, which is responsible for increased journey times, fuel inputs and maintenance costs (NBR, 2021).

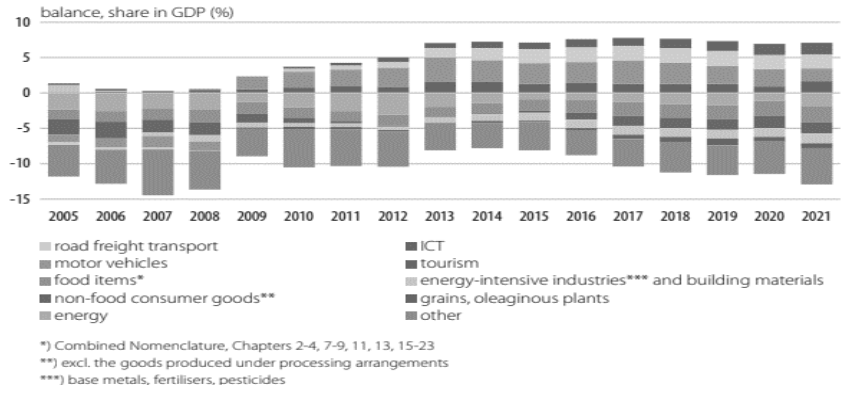

Figure 1 – Balance on goods and services 2005-2021
Source Eurostat, NIS, NBR calculations

As shown in Statistics Pocketbook (2021), EU transport in figures the transport sector as a whole account for more than 5% of EU GVA and more than 10.5 million related employees, i.e. more than 5.4% of the total EU workforce.

Although the road haulage sector has shown a positive development in 2021, with net receipts equivalent to 2 percent of GDP, the development of the sector is hampered by a number of structural problems that affect companies' decisions to create or increase capacity and contribute to maintaining a very uneven geographical distribution of production.

According to a ranking by IBISWorld 2023, the Freight Road Transport in Romania industry is valued at €10.7bn and is ranked 8th in Europe in 2023 (of 27 total EU countries). The industry's rank has risen from 2018

DOI: 10.4316/EJAFB.2023.11112

Volume 11/2023 ISSN 2344-102X
Issue 1 / **February** 2023 ISSN-L 2344-102X

when it was ranked 7th (see Figure 2).

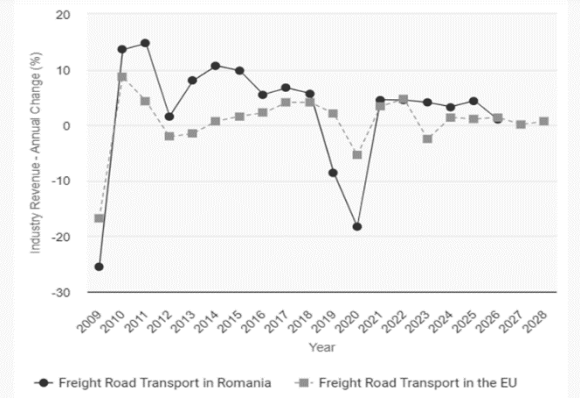

Figure 2 – Freight road transport in Romania – Industry revenue growth vs Europe
Source: IBISWorld 2023

The Romanian freight road transport sector is also the sixth largest sector in Romania in 2023 (out of a total of 298 sectors tracked by IBISWorld). The ranking of this sector (6th) has not changed since 2018.

Table 1 presents the characteristics of freight road transport in Romania industry in terms of evolution of the number of enterprises, employees, market share with forecasts of growth or decrease over the next 5 years.

Table 1. Statistical characteristics of freight road transport in Romania industry

Number of businesses (2023) 34,352 an increase of 1.7% from 2022	**Companies with the highest market share** There are no companies with more than 5% market share	**Employment Growth** 5.5% higher than five years ago	**Market size** measured by revenue is €10.7bn in 2023. **Market Size Growth** 2023 - 4.1%
People employed in 2023 139,904 people employed	**Average number of employees** 4.1 employees	**Forecast growth over the next 5 years** Members can sign up to receive forecast business data	**Industry over the past 5 years** Decreased by an average of 3.2% per year between 2018 and 2023.

Source: IBISWorld, 2022. Retrieved from: https://www.ibisworld.com/romania/industry-statistics/freight-road-transport/3195/

Recognizing both the substantial contribution of the transport sector to the European economy and the opportunities brought by the rapid trend towards digitalization and the goals of the circular economy, this study focuses on a performance indicator-based analysis of Romanian freight transport SMEs, supported by a sample of 100 freight transport entities.

III. SMES IN THE ECONOMIC AND ENVIRONMENTAL CRISIS ECONOMY

The issue of sustainable development is important in the context of globalization, rapid industrial growth, technological progress and climate change. Sustainable business development means caring for the health and development of employees and local communities, improving financial performance and ownership, while working to protect the natural environment (Comporek et al., 2021). Transport companies also play an important role in the development of other economic sectors. These economic activities inevitably have an impact on the environment. However, environmental performance indicators are mostly measured in large enterprises. Since the ecological footprint (EF) is an appropriate indicator of unsustainability, it is considered by as Szennay et al. (2021) an indicator of the environmental impact of SMEs.

DiBella et al. (2023) investigate the potential of SMEs to foster individual, organizational, and societal resilience through sustainable business practices, arguing that SMEs can be transformative sustainability agents with significant resources, capacity, and influence in their communities.

Analyzing and being aware of the importance of SMEs in the economy both at the microeconomic and macroeconomic level and taking into account the economic and social context generated by the current economic crisis, we have resorted to a literature review on the role and importance of SMEs in national economies around the world (see Table 2). The analysis covers 4 years (2020-2023) and includes the study of SMEs operating in the freight transport sector in Europe and the difficulties or opportunities in organising their activities in the context

DOI: 10.4316/EJAFB.2023.11112

Volume 11/2023 ISSN 2344-102X
Issue 1 / **February** 2023 ISSN-L 2344-102X

of the economic and environmental crisis and the technological process.

Table 2. Previous study regarding the importance and role of SMEs in the economy of the economic and environmental crisis and the technological process

Author, year	Aim	Results/ Conclusion	Impact
Thekkoote, 2023	This study highlights the economic impact on SMEs due to Coronavirus outbreaks.	The finding reveals that all the variables (business resilience, technology utilization, government support, prosocial leadership) significantly reduce the impact of COVID-19 on SMEs.	An impact study due to his practical implications for manufacturing organizations that want to be strong during and after COVID-19.
Skare et al., 2023	The digital economy and society index (DESI) is used as a proxy for SME concerns in this study to analyze the impact of digital technology.	The results show that digitally transformed SMEs are less concerned about access to new and traditional customers, changes in competition, access to finance, rising input costs, external shocks and regulatory changes.	An impact study providing quantitative findings on the link between digital transformation and the key business concerns of European SMEs.
Gupta et al., 2022	This study identifies new digitalization technology constraints that impede the digitalization of supply chain logistics during a pandemic.	According to the findings, the top five barriers to implementing innovative digitalization technologies during a pandemic are "high cost of investment", "lack of monetary resources", "inadequate internet connectivity", "lack of IT infrastructure" and "unclear economic benefit of digital investment".	It is an impact study as it provides suggestions for Indian logistics sector to overcome effects of pandemic
Dvorský & Petráková, 2021	This study identifies important sources of business risk for the future of business in Czech and Slovak entrepreneurs, separately in the service and transportation sectors.	The results show that the nationality of the entrepreneur is an important factor in the perception of the impact of business risk on the future of the business.	High impact due to the correlations between business risks and future of the company from both perception Slovak entrepreneurs and Czech entrepreneurs
Comporek et al., 2021	This study assesses the impact of macroeconomic conditions on the sustainable development of transport enterprises in Central and Eastern European Countries (CEECs) during 2008-2018.	The findings demonstrate a positive association between macroeconomic conditions and the long-term development of transportation firms, with Romania, Hungary, and Slovenia having the strongest correlation and Croatia having the lowest.	High impact due to the proved correlations among the research hypothesis that are based on a number of 25 indicators of economic, social, and environmental development of transport enterprises.
Secinaro et al., 2020	This study presents a systematic study of impacts in European SMEs.	The results suggest that the magnitude of the impact of SARS on European SMEs is much smaller than major reports and analyses suggest.	The average impact due to the fact that the study predicts the budgetary impact of future outbreaks, such as the ongoing coronavirus pandemic, and offers valuable lessons on control or prevention steps.
Carranza et al., 2020	This study develops and tests a research model of employee innovation that encompasses individual behaviors, organizational practices and process	The study cites employee engagement and empowerment as indicators that lead to increased productivity in a company and states that workplace	Is an impact study due to the fact that the management and organizational practices adopted by railway organizations have significant impacts on the

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Volume 11/2023 ISSN 2344-102X
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	practices, and analyzes the impact of workplace innovation on firm performance.	innovation is an opportunity for SMEs.	success of railways in global competition.
Negrutiu et al., 2020	Using a survey-based binary logistic regression model, this study explored the factors influencing the feasibility and competitive advantage of Romanian digital freight forwarders.	The results show that both sales and shipping departments are factors in the selection of a digital transportation company.	It is an impact study as the concept has the potential to disrupt the entire industry through a unique combination of efficiency, transparency, and sustainability.

Source: Author compilation based on literature

Researchers investigated the influence of COVID-19 on the supply chains of several end-user sectors, as well as their responses (Meleaga et al., 2022). Furthermore, they presented organizations with lessons and chances to increase supply chain resilience in the face of future shocks.

Ecological sustainability is poorly understood among SMEs, according to Kukanja et al. (2022). They believe this is because most scholars are focused on the long-term success of major firms in developed economies. According to published studies, sustainable performance approaches work well in large firms but not always in SMEs. Because of the current COVID-19 situation, a more in-depth examination into the relationship between irrational SMEs' conduct and attitudes and economic morality is required. To acquire a deeper understanding of this issue, standard economic theory cannot be depended on; instead, behavioral economics theory is required. Du et al. (2023) constructs a model of the practical link between irrationality, morality, and business ethics for SMEs. The research serves as a foundation for the development of programs to help SMEs improve their business thinking and behavior.

IV. Road Transportation SMEs - Sustainability Strategies

In contrast to larger corporations, there are no staff or managers committed to the time-consuming process of sustainability-oriented innovation (SOI). SOIs are innovations that a company can apply or execute to become more sustainable. These innovations might be on the product, process, or organizational level (Klewitz & Hansen, 2014). Regardless of these challenges and drives for SMEs, all businesses in the Netherlands will need to deal with climate and emission-related issues in order to meet environmental targets. Most SMEs are willing to take action on sustainability; nevertheless, most SMEs fail to incorporate sustainability into their practices and strategies (Matt Mace, 2018). As a result, it is critical to make it easier for SMEs to embrace sustainability and to make the topic and transition more doable.

Table 2 summarises the main motivating factors for SMEs to become more sustainable according to the literature.

Authors, year	Motivations toward sustainability
Bansal & Roth, 2000	Competitiveness, legitimation, and ecological responsibility
Revell et al., 2010; Sulong, 2015; Meath, 2016	Low eco-literacy, lack of understanding about environmental management, and lack of accessibility to data
Mbuyisa, 2015	Low employee skills levels
Lewis, 2015	lack of information on suitable firms with which to collaborate
Hasan, 2016; Johnson, 2016	Lack of management awareness, lack of awareness of sustainability issues and available program
Ghadge, 2017	lack of awareness on tool-based products/processes among customers
Conway, 2015; Auer, 2017	Difficulty in identifying, receiving, and understanding relevant environmental information to the business
Álvarez Jaramillo et al., 2019	Lack of resources, high initial capital cost for implementation, and lack of expertise
Alipour & Rahimpour, 2020·	Information barriers, Lack of resources, Legislation and regulation, Market
Straver, 2021	Intrinsic motivation, are motivated since it ‘’pays’’ and are motivated by governmental regulation
Mahmood et al., 2021	Lack of top management commitment, lack of understanding of corporate social responsibility, lack of strategic planning, complexity, and a lack of regulatory framework

Source: Author compilation based on literature

We can observe that in general, every organization has three sorts of barriers, which we might name general,

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Volume 11/2023 ISSN 2344-102X
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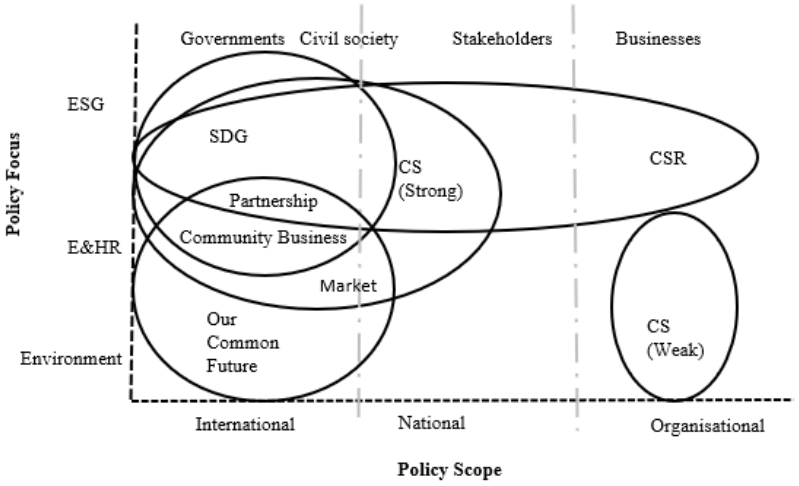
segmentation, and specific barriers. General barriers are the most frequent barriers faced by most businesses, regardless of industry, such as human resource and financial challenges in terms of environmental sustainability. The sort of business that SMEs participate in determines segmental barriers. Some of the constraints that develop in the transportation industry, for example, are meaningless in the food processing industry and vice versa. Individual barriers, which vary from company to company, are the final type. They are tied to the distinctive restrictions and position of each organization.

Regardless of these challenges and drivers for SMEs, all firms will need to address climate and emissions issues in order to meet environmental targets. Most SMEs are eager to take action on sustainability; nevertheless, most SMEs struggle to incorporate sustainability into their practices and strategies (Matt Mace, 2018). As a result, there is a need to make it easier for SMEs to embrace sustainability and to make the topic and transition more manageable.

There are several conceptions of sustainability as they apply to business in the literature; the range of concepts can be confusing owing to overlap at times (Socoliuc et al., 2020). Sheehy & Farneti (2021) argue that all of these concepts are undoubtedly interconnected and, to some extent, bring attention to non-financial aspects of corporate operations. Furthermore, they all express concern about the influence of business activity on the natural environment. Figure 3 provides an overview of some of the most important CSR-related concepts found in the literature.



LEGEND	
SDG	Sustainable Development Goals
CSR	Corporate Social Responsability
CS	Corporate Sustainability
E&HR	Environment & Human Rights
ESG	Environment Social Governance

Figure 3 – Concepts of sustainability and business
Source: Adapted from Sheehy & Farneti (2021)

As can be seen, the term's scope is depicted on the horizontal axis, ranging from international to national to organizational public policy. The spectrum of policy objectives is shown by the vertical axis. These range from a sole environmental focus to a worldwide socioeconomic-ecological agenda.

The role of the state and stakeholders in this equation cannot be overlooked. Stakeholders can be best described by their needs, objectives, and scope. They differ primarily in terms of whether they are private or public, as well as the type of operation they perform in the logistics system. Freight forwarders, shippers, and other contractors are examples of private stakeholders. Freight forwarders often strive for low-cost but high-quality pick-up and delivery rounds that fulfill the interests of both the shipper and the consignee, with the shipper's primary goal being profit maximization. Their objectives do not always result in the most efficient delivery of services.

V. CONCLUSION

SMEs contribute new solutions to concerns like as climate change, resource efficiency, and social cohesion, and they help spread this innovation across Europe's regions. In terms of business models, size, age, and entrepreneur characteristics, SMEs are quite diverse, and they rely on a wide talent pool of men and women. They range from self-employed professionals and micro-firms in the service sector to mid-level industrial enterprises, traditional crafts to high-tech start-ups.

DOI: 10.4316/EJAFB.2023.11112

Volume 11/2023 ISSN 2344-102X
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SMEs may believe that sustainability is only important for giant corporations, and that the administrative and financial burdens outweigh the benefits for a small business. Furthermore, their accountants, both those hired by the company (accountants in business) and those offering services to the company (accountants in practice), will tell you that convincing SMEs to adopt sustainability is difficult. SMEs who incorporate sustainability into their main business plan, on the other hand, can profit from cheaper costs, decreased risk, and new prospects. And their accountants, who often work in small to medium-sized practices (SMPs), can play an important part in their journey.

SMEs, particularly those in the transportation sector, are critical to the global economy's health and stability: they account for more than 95% of all businesses and the majority of private sector GDP, wealth and job creation, and social and environmental impacts. Meanwhile, the natural environment is under enormous strain, and it is well-acknowledged that finite resources are rapidly disappearing. Today, SMEs are under increased pressure to monitor and manage their environmental effect. They are an essential component of the supply chain, where there is a growing demand for sustainability management from both customers and suppliers, particularly for SMEs pursuing contracts with governments or larger corporations. SMEs must also ensure that they have access to the resources they require to continue offering their products and services in the future. This study not only confirmed that SMEs are a source of employment but also an important contributor to GDP. In this sense, Romania needs to increase the innovative and competitive capacity of SMEs, not only to increase employment but also to make them an engine for the development and support of the private sector.

Despite the fact that the pandemic has been over for over 2-3 years, Romania's SME sector remains vulnerable, and the repercussions will be seen for the foreseeable future. Companies have taken certain restructuring measures to minimize the effects and recover as quickly as possible on the Romanian economic market, including reconfiguring vendor offerings, reducing supplier credit, reducing company operating expenses, reducing staff, and digitizing company activities.

There are several options for increasing road freight traffic in Romania, so that a significant portion of the domestic freight transport currently carried on the road system is shifted to the rail network. This entails boosting funding for rail infrastructure modernization projects, yet modernizing rail infrastructure necessitates considerable infrastructure modifications in order to improve overall performance.

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DOI: 10.4316/EJAFB.2023.11112