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THE IMPACT OF FINANCIAL CONDITIONS ON THE SUSTAINABLE DEVELOPMENT OF TRANSPORT ENTERPRISES IN POLAND – FROM THE FINANCIAL CRISIS TO THE COVID-19 PANDEMIC

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Purpose: The paper primarily aims to assess financial conditions' impact on the sustainable development of transport enterprises in Poland from 2008 to 2020.
Design/methodology/approach: The research's novelty is to create the sustainable development indicators and its three pillars, economic, social and environmental and assess the impact of the chosen financial areas on its levels. I use the Ordinary Least Square, and the Seemingly Unrelated Regression methods to verify the central research hypothesis.
Findings: The analysis results indicate that in Poland, there is a positive trend in the sustainable development of transport enterprises. What is more, its high rates also remain at the time of the outbreak of the Covid-19 pandemic. Moreover, financial situation indicators significantly impact sustainable development (profitability on sales and debt level) and its pillars (here, the level of impact of individual areas on the pillars of sustainable development varies); therefore, managers of enterprises must make rational decisions in this respect.
Research limitations/implications: The availability of data, the choice of normalization method and the choice of research sample.
Practical implications: The empirical implications include that the results of the analyses can support the managers of enterprises in making operational and strategic decisions.
Social implications: The social development of the logistics sector is visible, and it is necessary to take further actions to improve working conditions and quality.
Originality/value: The study's novelty is to show how the sustainable development of transport companies and their pillars behaved in Poland from the financial crisis to the Covid-19 pandemic.
Keywords: sustainable development, transport enterprises, financial conditions.
Category of the paper: Research paper.

1. Introduction

The sustainable development of enterprises is crucial for building sustainable economic growth, considering social issues and environmental protection (Pieloch-Babiarz et al., 2021; Comporek et al., 2022). It means running a business that cares for the present and future generations. In economic practice, implementing sustainable development goals refers to taking active measures in three pillars: economic, social and environmental (Gryga, 2016; Oželienė, 2017). Thus, in addition to maximizing profit, entrepreneurs should actively support the development of the company's human capital, care for the development of local communities and reduce the negative impact on the natural environment (Costa, 2022; Marrucci, 2022).

Sustainable development of enterprises supports the country's stable development; its level, dynamics and conditions depend on the sector of the economy in which they occur. One of the key sectors for creating favourable conditions for the country's economic growth is transport (Buonocore et al., 2019). Its role results from the fact that these enterprises generate national income and play a subordinate role towards other sectors of the economy. Moreover, the transport sector is one of the biggest polluters of the environment due to high harmful emissions (Omahne et al., 2021; Taghvaee et al., 2022).

Sustainability is the subject of several scientific studies. Researchers emphasize that this development is important for the country's development, but there is no consensus on how to measure the level of its sustainable development (Giles-Corti et al., 2020), and there is no agreement as to which factors, external or internal, are the most important for socially and ecologically responsible investments (Penfield, 2007; Zuzek, Mickiewicz, 2014; Matinaro et al., 2019; Sun et al., 2023).

The study's novelty is to show how the sustainable development of transport companies and their pillars behaved in Poland from the financial crisis to the Covid-19 pandemic. In addition, the impact of selected areas of the financial and property situation assessment on its level was assessed. For this purpose, the following research hypothesis was formulated, "Profitability and debt level are of key importance for the sustainable development of transport companies in Poland from 2008 to 2020", and the Pearson's correlation coefficient, the Ordinary Least Square Method (OLS) estimation and Seemingly Unrelated Regression (SUR) were used to verify it.

Despite the research limitations related to the selection of diagnostic variables, the normalization method or econometric methods, the study is important and can support the managers of economic entities in making operational and strategic decisions.

The manuscript includes an introduction, theoretical background, research methodology, results, discussion and conclusions. The paper uses Polish and foreign literature on the subject, collected based on the Web of Science and Scopus databases and statistical data from the Eurostat database.

2. Sustainable development of enterprises and its financial conditions – theoreticcal background

Socio-economic changes and increased awareness among society meant that companies wanting to meet the increase in competitiveness and maintain or strengthen their competitive position on the market must take socially and ecologically responsible actions (Koźmiński et al., 2020; Pieloch-Babiarz et al., 2021). The concept of sustainable development must be implemented by states, international organizations, communities and enterprises to bring measurable effects. Especially the role of the latter is fundamental because the rapid development of industry and globalization have led to the degradation of the natural environment (Amin et al., 2021; Nodehi, Taghvaee, 2022).

Sustainable development of enterprises is often identified with ecological development, corporate social responsibility (CSR), or the environment, social responsibility and corporate governance (ESG) (Yun, Lee, 2022; Park et al., 2023). This term is variously defined in the literature on the subject (Poskrobko, 1997; Mazur-Wierzbicka, 2005; Marrucci et al., 2022).

Researchers who equate sustainable development with ecological development emphasize the importance of eco-innovations, activities to protect the natural environment, saving electricity, and introducing environmentally friendly technologies or electric vehicles (Bonzanini Bossle et al., 2016; Pichlak, Szromek, 2021). Other scientists emphasize the issues of responsibility towards society, including towards employees, and point to the role of training and education for sustainable development (Padilla-Rivera et al., 2020; Sagan, 2021). Many researchers emphasize that the sustainable development of enterprises is related to responsibility towards stakeholders, in other words, activities supporting the development of local communities or nature conservation, raising the competitive position, strengthening stakeholders, and favoring the interest of new shareholders (Bower, Paine, 2017; Bose, 2020; Krasodomska et al., 2022).

An overview of selected definitions of sustainable development of enterprises is presented in Table 1.

Table 1.
Selected definitions of sustainable development of enterprise

Author	Definitions of sustainable development of enterprises
B. Poskrobko (1997)	New ways of organizing and managing business units, manifested by replacing technology that is burdensome for the environment with technological devices that are environmentally friendly and ensure safety and people's comfort. Implementing sustainable development at the level enterprise is done through greening management.
T. Dyllick, K. Hockerts (2002)	Meeting the needs of a firm's direct and indirect stakeholders (…) without compromising its ability to meet the needs of future stakeholders as well
E. Mazur-Wierzbicka (2005)	Sustainable development is expressed by three key areas: "ecological (preserving the environment and its natural resources), economic (economic development stimulated by technological progress and increasing the efficiency of the use of raw materials, and human work) and social (improvement of living conditions and safety for all people)"

Cont. table 1.

B. Colbert, E. Kurucz (2007)	Keep the business going
P. Penfield (2007)	Sustainable development is now about thinking in terms of life cycle costs, parts of equipment or a single process, as well as activities
M. Drljača (2012)	A process in which less and fewer resources are being spent to meet the needs of consumers and in which the environment is less polluted
D.K. Zuzek, B. Mickiewicz (2014)	All activities undertaken by the company and minimizing the negative impact on the natural environment can be considered as a manifestation of implementation sustainable development concept. In this way, companies contribute to maintaining the right amount and quality of natural capital, which is the basis for meeting the needs of current and future generations and adapting the scale of the economy to the ecosystems on which it operates
A. Panasiewicz (2015)	A sustainable company, in accordance with the concept of sustainable development, can maximize its profit and at the same time reduce its negative impact on the environment.
E. Lorek (2015)	Sustainable development requires the introduction of an organization management system that allows monitoring and adapting to the conditions external
K. Gryga (2016)	The basis for building a sustainable and sustainable enterprise is sustainable production and consumption. Attention is paid to the modernization of production, leading to the optimization of processes, reduction of energy and materials, as well as for an effective dialogue between entrepreneurs and state authorities
D. Oželienė (2017)	A holistic approach of thinking of business which seeks to integrate consideration of the three aspects of sustainability—social, environmental and economic
A.A.A. Sharabati (2018)	The continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large
P. Centobelli (2020)	Sustainable development that encompasses different types of focus, ranging from resource efficiency to the circularity of product usage and disposal
A.J. Costa (2022)	The concept of sustainable development should apply to the external environment of the organization, in other words to a certain region [country, state] in a certain period of time.
L. Marrucci et al. (2022)	Sustainable development considers three dimensions: economic, environmental, and social. Therefore, most of the operations in manufacturing companies in the sustainable area face challenges with the mentioned three
H. Sun et al. (2023)	Sustainable development capability is also a part of enterprise values and business methods.

Source: own elaboration based on literature on the subject.

Sustainable development of the enterprise means quantitative and qualitative changes taking place in three dimensions: economic, social and environmental. It means a process of changes related to the production system, thinking about running a business, and implementing technologies and environmentally friendly solutions.

One of the sectors that are important for the country's stable and sustainable economic development, taking place in line with social progress and nature protection, are transport companies, whose role in modern economies is extremely important; this is because this sector not only generates high shares in the gross domestic product but also supports the development of other sectors in the economy (Pereira et al., 2017; Comporek et al., 2022; Chen et al., 2023). Due to the changing regulations in environmental protection and increasingly higher environmental protection standards, the transport and storage section has implemented several improvements to support reducing emissions of toxic substances into the atmosphere (Kucharčíková, Mičiak, 2018; Xie, 2022; Remyha et al., 2023).

The literature on the subject emphasizes that the sustainable development of transport enterprises has a slight positive trend, while its level depends on several factors related to legal regulations and macroeconomic and geopolitical conditions of countries, as well as the situation inside the sector (Comporek et al., 2021; Richnák, Fidlerová, 2022).

Researchers emphasize that the financial and property situation and financial security are important for socially and ecologically responsible investments (Sachs et al., 2019; Misztal, 2021). However, there is no consensus on which areas of the ratio analysis of the assessment of the financial and property situation are crucial, and what is more, it has not been fully examined whether external or internal factors are more important for the sustainable development of transport enterprises.

Financial liquidity is important for sustainable development as it allows for the settlement of the company's current liabilities towards contractors, employees and payments to the Social Insurance Institution and the Tax Office. On the other hand, it enables the company to make new investments, thanks to which it can develop further. The criterion of financial liquidity also allows assessment of the company's financial condition, and banks often consider it during credit granting. Profitability reflects the effectiveness of the capital held by the entrepreneur and the efficiency of asset management. High values of profitability ratios create an opportunity for the company's development and increase in its value in the future (Bobinait, 2015; Wang et al., 2017; Sadiq et al., 2022). Efficient operation and proper debt management are important for the company's perception by investors and for creating the right conditions for making new social and environmental investments.

3. Research methodology

The study's main aim is to assess the impact of the financial and property situation on the sustainable development of Polish transport enterprises from 2008-2020. The transport sector was analyzed due to its large role in economic development, high emission intensity, and at the same time, new legal regulations in the field of environmental protection, which had to be introduced into business practice.

The research period covers the period from 2008 to 2020, i.e. the time from the financial crisis to the Covid-19 pandemic, which will allow noticing the situation of sustainable development and its three pillars of economic, social and environmental transport enterprises. The data for the analysis were taken from the Eurostat database, and they are annual data; the availability of economic, social and environmental data conditions their collection.

To verify the research goal it is used the Ordinary Least Square Methos (OLS) and the Seemingly Unrelated Regression (SUR) methods to verify the central research hypothesis, which is as follows "Profitability and debt level are essential for the sustainable development

of transport companies in Poland from 2008 to 2020". Such a hypothesis results from the assumption that profitability and a low level of debt are conducive to new investments supporting the multiplication of profits in the future.

Moreover, the following sub-hypotheses were formulated:

- The dynamics of the economic development of transport enterprises is higher than the social and environmental development in Poland in the years 2008-2020;
- The Covid-19 pandemic did not significantly affect the level of sustainable development indicators and the economic, social and environmental pillars in 2020;
- There is a strong diversification as to the impact of financial areas on economic, social and environmental pillars of sustainable development of transport enterprises.

The study was conducted in the following stages:

- Stage 1: Creation of synthetic indicators of economic, social and environmental development, and based on them, the indicator of sustainable development of transport enterprises. These indicators are based on the following diagnostic variables:
  - economic development (E), based on stimulants: Enterprises - number Turnover or gross premiums were written - million euros Production value - million euros Gross operating surplus - million euros Total purchases of goods and services - million euros;
  - social development (S), based on stimulants: Wages and Salaries - million euro Social security costs - million euro Gross investment in tangible goods - million euro Employees - number Apparent labour productivity (Gross value added per person employed) - thousand euro Investment per person employed - thousands of euros and destimulants: Personnel costs - one million euros;
  - environmental development (Env): destimulants: greenhouse gas emissions.

  Normalization of diagnostic variables was based on the following formulas:
  - for the stimulants:

$$z_{ij} = \frac{x_{ij}}{\max\limits_{i}\{x_{ij}\}},\ z_{ij} \in [0;1]; \tag{1}$$

  - for the destimulants:

$$z_{ij} = \frac{\min\limits_{i}\{x_{ij}\}}{x_{ij}},\ z_{ij} \in [0;1] \tag{2}$$

where:

z_{ij} stands for the normalized value of the j-th variable in the i-th year;

x_{ij} is the value of the j-th variable in the i-thyear;

$\min\limits_{i}\{x_{ij}\}$ is the lowest value of the j-th variable in the i-th year;

$\max\limits_{i}\{x_{ij}\}$ is the highest value of the j-th variable in the i-th year.

To calculate the indicator of SD, E, S, and Env I assume the same impact of different indices on the aggregate measure and use the following formula:

$$SI_i = \frac{1}{n}\sum_{j=1}^{n} z_{ij}\,,\ (i = 1,2,\dots,\ n) \tag{3}$$

where:

SI_i stands for the indicator in the i-year;

n is the number of metrics; others as above.

- Stage 2: I created a model for assessing the impact of financial areas on the sustainable development of transport enterprises:

$$SDi = \beta_0 + \beta_1 \cdot CR_i + \beta_2 \cdot QR_i + \beta_3 \cdot ROS_i + \beta_4 \cdot ROA_i + \beta_5 \cdot ROE_i + \beta_6 \cdot IS_i + \beta_7 \cdot RR_i + \beta 8 \cdot DR_i + \varepsilon_i \tag{4}$$

where:

CR - current ratio,

QR - quick ratio,

ROS - return on sales,

ROA - return on assets,

ROE - return on equity,

IS - Inventory/stock turnover ratio (in days)/Inventories cycle,

RR - Receivables turnover ratio (in days)/Receivables cycle,

DR - debt ratio.

- Stage 3: A model of interdependent equations was created, which I estimated using the Seemingly Unrelated Regression (SUR) method, based on the formula:

$$\begin{cases} E = \beta_0 + \beta 1 \cdot \mathrm{CRi} + \beta 2 \cdot \mathrm{QRi} + \beta 3 \cdot \mathrm{ROSi} + \beta 4 \cdot \mathrm{ROAi} + \beta 5 \cdot \mathrm{ROEi} + \beta 6 \cdot \mathrm{ISi} + \beta 7 \cdot \mathrm{RRi} + \beta 8 \cdot \mathrm{DRi} + \beta 9 \cdot \mathrm{Si} + \beta 10 \cdot \mathrm{Envi} + \varepsilon_i \\ S = \beta_0 + \beta 1 \cdot \mathrm{CRi} + \beta 2 \cdot \mathrm{QRi} + \beta 3 \cdot \mathrm{ROSi} + \beta 4 \cdot \mathrm{ROAi} + \beta 5 \cdot \mathrm{ROEi} + \beta 6 \cdot \mathrm{ISi} + \beta 7 \cdot \mathrm{RRi} + \beta 8 \cdot \mathrm{DRi} + \beta 9 \cdot \mathrm{Ei} + \beta 10 \cdot \mathrm{Envi} + \varepsilon_i \\ Env = \beta_0 + \beta 1 \cdot \mathrm{CRi} + \beta 2 \cdot \mathrm{QRi} + \beta 3 \cdot \mathrm{ROSi} + \beta 4 \cdot \mathrm{ROAi} + \beta 5 \cdot \mathrm{ROEi} + \beta 6 \cdot \mathrm{ISi} + \beta 7 \cdot \mathrm{RRi} + \beta 8 \cdot \mathrm{DRi} + \beta 9 \cdot \mathrm{Ei} + \beta 10 \cdot \mathrm{Si} + \varepsilon_i \end{cases} \tag{5}$$

The formula for the SUR estimator is as follows:

$$\sqrt{\mathrm{R}} \cdot \left(\hat{\beta} - \beta\right) \xrightarrow{\mathrm{d}} \mathrm{N}\left(0, \left(\frac{1}{\mathrm{R}} \cdot \mathrm{X}^{\mathrm{T}} \cdot \left(\sum -1 \otimes \mathrm{I}_{\mathrm{R}}\right) \cdot \mathrm{X}\right)^{-1}\right. \tag{6}$$

where:

R - the number of observations,

Ω - covariance matrix,

X - equations,

IR - the R-dimensional identity matrix;

$\otimes$ - denotes the matrix Kronecker product;

$\widehat{\sum}$ - the matrix,

y - vector.

4. Research results

Figure 1 shows the number of registered enterprises in the section Transport and Storage (H) in Poland from 2008 to 2020. The number of enterprises increases from 148.756 to 170,508 thous. In particular years, there are slight fluctuations in the number of registered business entities, and it should be noted that in 2020 it slightly decreased compared to 2019, which may be the result of the beginning of the Covid-19 pandemic and the related restrictions.

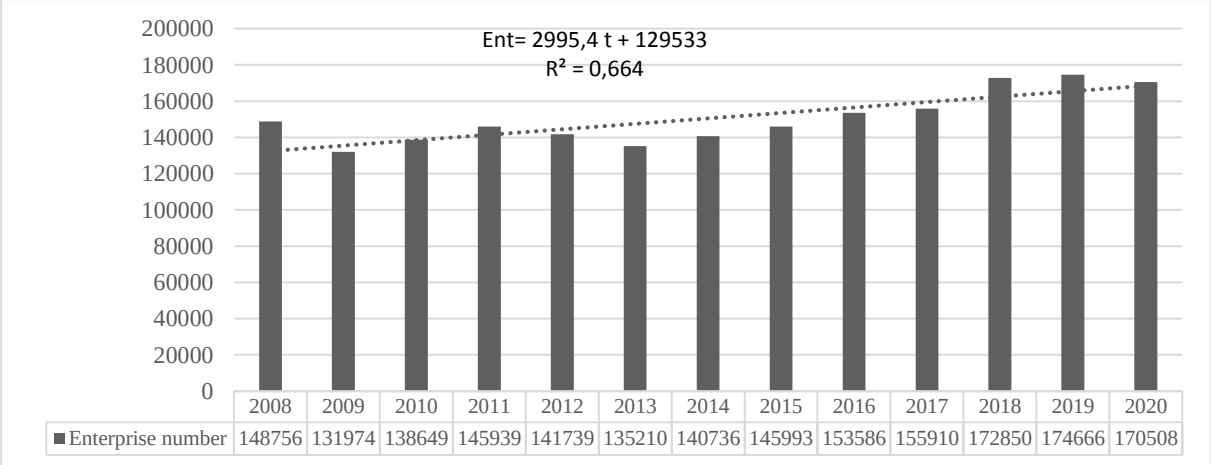

Figure 1. The number of transport enterprises in Poland from 2008 to 2020.

Source: own elaboration based on Eurostat database.

Table 2 presents indicators of sustainable development and its economic, social and environmental pillars of transport enterprises in Poland from 2008 to 2020. The results indicate that all indicators show a positive trend, with the lowest level among the indicators at the beginning of the period for the environmental development indicator.

Table 2.

Sustainable development and its pillars in transport sector in Poland (2008-2020)

Indic.	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
E	0,64	0,53	0,59	0,64	0,64	0,65	0,69	0,72	0,76	0,82	0,97	0,99	0,98
S	0,68	0,60	0,64	0,70	0,70	0,71	0,76	0,80	0,69	0,75	0,88	0,90	0,92
Env	0,60	0,59	0,56	0,55	0,55	0,58	0,56	0,54	0,47	0,42	0,41	0,92	1,00
SD	**0,64**	**0,57**	**0,59**	**0,63**	**0,63**	**0,65**	**0,67**	**0,68**	**0,64**	**0,66**	**0,75**	**0,94**	**0,97**

Source: own elaboration based on Eurostat database.

Descriptive statistics for synthetic indicators indicate that the highest maximum value occurs in the case of the environmental development indicator in 2020 (1.00), which may be because part of the business was closed, which reduced the emission of harmful substances. The highest median level was 0.71 for the social indicator and the lowest for the environmental development indicator (0.56). The highest dynamics of development in the analyzed period occur in the economic development indicator and the lowest in the case of the environmental development indicator, which indicates that the managers of enterprises still put the greatest emphasis on economic results.

Table 3.
Descriptive statistics for SD, E, S and Env indicators (2008-2020)

Indicator	Max	Min	Mean	Mediana	Std. Dev.	Trend line
E	0,99	0,53	0,74	0,69	0,15	E= 0,037 t + 0,481, R2= 0,86
S	0,92	0,60	0,75	0,71	0,10	S= 0,0232 t + 0,5861, R2= 0,79
Env	1,00	0,41	0,60	0,56	0,17	Env= 0,0159 t + 0,4844, R2= 0,13
SD	0,97	0,57	0,69	0,65	0,12	SD= 0,0253 t + 0,5172, R2= 0,6413

Source: own elaboration based on Eurostat database.

Table 4 presents the results of assessing the financial situation of enterprises in selected areas of the financial and property situation. In the analyzed period, financial liquidity increases, which may indicate a gradual recovery from the crisis; moreover, in 2020, enterprises have sufficient capacity to repay their liabilities on an ongoing basis. Section H enterprises need help with equity, assets and sales profitability. As indicated by the debt ratio (DR), the increase in the sector's debt is a worrying phenomenon.

Table 4.
Indicators of the financial situation of transport enterprises in Poland in 2008-2020

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
CR	1,31	1,24	1,30	1,33	1,31	1,39	1,42	1,52	1,62	1,52	1,51	1,48	1,58
QR	1,17	1,11	1,17	1,21	1,20	1,29	1,31	1,41	1,49	1,39	1,38	1,35	1,45
ROS	0,01	0,02	0,03	0,03	0,03	0,03	0,03	0,04	0,04	0,04	0,04	0,04	0,02
ROA	0,01	0,01	0,02	0,02	0,02	0,02	0,02	0,03	0,03	0,03	0,03	0,03	0,01
ROE	0,01	0,03	0,05	0,06	0,05	0,06	0,06	0,07	0,09	0,08	0,08	0,09	0,04
IS	8,31	8,41	7,20	6,60	6,11	6,02	6,36	6,06	8,23	7,94	7,64	7,55	7,71
RR	56,65	59,32	56,63	57,91	56,72	59,23	60,02	63,33	63,31	63,97	65,61	63,52	64,87
DR	0,55	0,55	0,55	0,57	0,59	0,60	0,63	0,64	0,66	0,66	0,66	0,67	0,68

Source: own elaboration based on Eurostat database.

Descriptive statistics for individual areas of the assessment of the financial situation are presented in Table 5. The median of the current liquidity ratio is 1.42, slightly below the assumed values (1.5-2). The median return on sales is 3%, return on assets (2%) and equity (6%). The median of the total debt ratio is 63%.

Table 5.
Descriptive statistic of indicators of the financial situation of transport enterprises in Poland in 2008-2020

Indicator	Max	Min	Mean	Mediana	Std. Dev.
BP	1,62	1,24	1,43	1,42	0,11666
BPS	1,49	1,11	1,30	1,31	0,116299
ROS	0,04	0,01	0,03	0,03	0,010042
ROA	0,03	0,01	0,02	0,02	0,007074
ROE	0,09	0,01	0,06	0,06	0,022359
Rotza	8,41	6,02	7,24	7,55	0,868428
Rotna	65,61	56,63	60,85	60,02	3,21877
Zad	0,68	0,55	0,62	0,63	0,046981

Source: own elaboration based on Eurostat database.

The estimation results show that the sustainable development of transport enterprises is negatively influenced by the profitability of sales and the level of debt (Table 6). It should be emphasized that the estimation of the OLS maintained all the conditions necessary to apply this

method. It is checked the assumption of the method, including unit root tests (KPSS tests), homoscedasticity (the White test), autocorrelation (the Durbin-Watson and Breusch-Godfrey tests), normality (the Doornik-Hansen test), and collinearity (Variance inflation factor). The negative sign in front of the variable return on sales may result from its low level and the fact that companies striving to increase the return on sales forget about the business's social and ecological responsibility. In turn, the positive impact of debt indicates that loans taken out by enterprises positively impact the sustainable development of the sector.

Table 6.
The OLS estimation: Dependent variable = SD

	Coefficient	**Std.dev.**	**t-Student**	**p-value**	**R2**
Const	−0,854390	0,321403	−2,658	0,0240	0,7
ROS	−6,96800	2,82254	−2,469	0,0332	
Z	2,84197	0,603334	4,710	0,0008	
White Test: LM = 7,46368 with p = P(Chi-kwadrat(5) > 7,46368) = 0,188376					
Test for normality of residual distribution: Chi-kwadrat(2) = 2,93442 with p = 0,230568					
LM test: LMF = 2,23157 with p = P(F(1, 9) > 2,23157) = 0,169423					

Source: own elaboration based on Eurostat database.

The results of the SUR estimation indicate a significant degree of diversification of the impact of individual areas of the assessment of transport enterprises' financial and property situation on the pillars of sustainable development (Table 7). The greatest ratios affecting economic development are profitability of sales (negative impact), profitability of assets, inventory turnover and debt level. Social development is affected by return on sales (negative impact), return on assets and level of debt. In turn, environmental development depends on the level of social development.

Table 7.
The SUR estimation: Dependent variable= E, S, Env

		Coefficient	**Std.dev.**	**t-Student**	**p-value**	**R2**
E	const	−1,50915	0,215835	−6,992	0,0002	0,99
	ROS	−19,8418	5,60112	−3,542	0,0094	
	ROA	27,1373	6,69777	4,052	0,0049	
	Rotza	0,0605887	0,00600856	10,08	2,02e-05	
	Zad	1,56763	0,466252	3,362	0,0120	
	S	1,08884	0,113238	9,616	2,77e-05	
S	Const	−1,33523	0,298500	−4,473	0,0015	0,86
	ROS	−31,7465	9,10558	−3,486	0,0069	
	ROA	34,6754	11,0744	3,131	0,0121	
	Zad	3,61976	0,524689	6,899	7,08e-05	
Env	Const	−0,0942880	0,304898	−0,3092	0,7629	0,27
	S	0,922447	0,404074	2,283	0,0433	
Breuscha-Pagana test: Chi-kwadrat(3) = 0,994322 [0,8026]						
Hansen-Sargan test: Chi-kwadrat(3) = 4,87355 [0,1813]						

Source: own elaboration based on Eurostat database.

The SUR model indicates that although the impact of individual areas of the financial situation affects economic, social and environmental development, it should be emphasized that ecological investments depend on social development and the general economic situation of business entities.

5. Discussion

Sustainable development takes place in specific socio-economic conditions. Undoubtedly, it is influenced by legal regulations in environmental protection. It depends on endogenous and exogenous factors (Bobinait, 2015; Pieloch et al., 2021; Comporek et al., 2022; Sadiq et al., 2022).

The analysis results show that the dynamics of sustainable development of the surveyed group of enterprises is positive; this indicator increased from 0.64 in 2008 to 0.97 in 2020. This phenomenon should be assessed positively, as this sector is developing in three pillars: economic, social and environmental (Comporek et al., 2021; Misztal, 2021). The first has the highest growth dynamics, but there are positive effects on social and environmental development.

The sector of transport enterprises is struggling in a given period with several problems of a financial and property nature. The sector's liquidity is improving, but the problem is low profitability and a relatively high level of debt.

It should be noted that in 2020, i.e. the year of the outbreak of the Covid-19 Pandemic, there was no significant deterioration in the level of indicators. Moreover, the environmental development indicator increased quite significantly (Wang, Huang, 2021; Nundy et al., 2021).

The adopted central research hypothesis is true because, as the results of the OLS estimation show, the sales profitability and the level of debt in the sector statistically significantly affect the sustainable development of transport companies. Undoubtedly, the increase in the general debt ratio has a positive impact on sustainable development, which results from the fact that the increase in loans causes more investments, which translates into the improvement of the analyzed ratios.

The first research sub-hypothesis is true because, as indicated by the trend lines of synthetic indicators, economic development dynamics are higher than social and environmental development dynamics. Thus, business managers still emphasize increasing profits and improving the economic conditions for running a business.

The second research sub-hypothesis is also true because the Covid-19 pandemic did not significantly affect the deterioration of sustainable development indicators. Moreover, the environmental development indicator increased due to temporary restrictions and restrictions on doing business.

The third research sub-hypothesis is also true because there is a strong differentiation as to the impact of individual areas of assessing the financial situation of economic entities on their sustainable development.

The study results confirm the importance of maintaining the enterprise's proper financial, property and capital relations. A good financial and property condition is conducive to making socially and environmentally responsible investments.

The study has research limitations related to the availability of statistical data, the selection of the research sample, the adopted study period, the normalization method of variables and estimation methods.

6. Conclusions

Sustainable development of enterprises means improving the dynamics in three pillars: economic, social and environmental. The sector of transport companies plays a key role in creating economic growth and development of the entire economy. Due to the need to reduce the emission of harmful substances, special attention should be paid to the transport sector.

The study results indicate that from recovering from the financial crisis until the Covid-19 pandemic, the dynamics of sustainable development and its pillars are positive. Liquidity is improving, profitability is low, and the sector's debt is increasing.

The results of the OLS and the SUR estimation indicate that the impact of individual financial analysis indicators on sustainable development and its pillars is varied. Increasing profitability may occur at the expense of achieving ecologically and socially responsible goals. In turn, the increase in debt translates into green investments.

The undertaken analyses bring some theoretical and empirical implications. Theoretical implications include a literature review on the subject, an indication of one's definition and the development of one's research methodology. The empirical implications include that the results of the analyses can support the managers of enterprises in making operational and strategic decisions.

Further research will determine which external or internal factors are more important for the sustainable development of transport companies in the European Union.

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