

ROMANIAN TRANSPORT SECTOR COMPANIES: DIFFERENCES FROM OTHER INDUSTRIES AND FACTORS INFLUENCING SUSTAINABILITY

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Abstract: *This study examines the interplay between economic performance and sustainability initiatives within Romanian corporations, with a particular focus on the transport sector. While corporate sustainability is gaining global prominence, its implementation and economic implications exhibit significant variation across industries in Romania. The research investigates three primary factors influencing sustainability adoption: financial performance, sectoral distinctions, and corporate maturity. To assess these dimensions, surveys were conducted with 444 CEOs and CFOs, evaluating financial health, innovation strategies, and proactive management approaches. These qualitative insights were systematically cross-referenced with financial records from the Romanian Ministry of Finance spanning a ten-year period. The findings indicate that companies in the transport sector encounter distinct challenges in integrating sustainable practices, primarily due to financial constraints such as the costs associated with upgrading aging vehicle fleets. Relative to other industries, transport enterprises exhibit lower levels of proactive engagement and innovation in sustainability initiatives. Additionally, younger companies demonstrate a stronger commitment to ecological practices compared to older organizations, which tend to prioritize regulatory compliance over voluntary sustainability efforts. These results highlight the necessity of tailored policy interventions, fiscal incentives, and innovation-driven strategies to address industry-specific obstacles to sustainability. Achieving a balance between economic growth and environmental objectives requires strategic planning and targeted support mechanisms, particularly for high-impact sectors such as transportation. This research enhances the understanding of sustainability adoption dynamics in Romania and provides valuable insights for future studies on the long-term implications of corporate sustainability and environmental outcomes.*

Keywords: *Economic Performance; Innovation; Proactivity Romanian Corporations; Sustainability*

JEL Classification: *R41, Q01, Q55*

1. Introduction

1.1 Foundations and context of the study

Corporate sustainability, once viewed as a financial burden, is now recognized as enhancing long-term economic performance. It integrates sustainability—preserving resources and minimizing harm to natural systems—and resilience, enabling organizations to adapt to disruptions. Together, these concepts drive corporate sustainability entrepreneurship, where economic health aligns with environmental responsibility.

Romania's economic growth, fueled by EU accession in 2007, has prompted structural reforms and foreign investment [1]. Corporate sustainability has gained momentum, reflecting broader European trends. Romanian companies increasingly adopt green initiatives, such as energy efficiency, to boost competitiveness and align with sustainable development goals. Studies (e.g., [2, 3]) show that sustainability principles drive innovation and competitiveness while addressing environmental challenges. However, gaps persist in sector-specific analyses and long-term impacts.

Despite research on CSR and financial performance [4], limited attention has been given to how green policies affect economic outcomes across sectors. This study addresses these gaps, exploring sectoral variations and managerial perspectives on sustainability implementation. By analyzing sustainable practices' economic impacts, the research contributes to both academic discourse and corporate strategies, offering insights for Romania's transition toward sustainable business practices.

Corporate sustainability has become a central concern in contemporary economies [5, 6]. Corporate sustainability entrepreneurship, closely linked to corporate social responsibility [7], identifies and maximizes sustainable economic opportunities. However, its practical implementation across industries remains inconsistent, requiring further exploration. Key frameworks, such as Elkington's [8] Triple Bottom Line (TBL) and the Resource-Based View [9], balance economic, environmental, and social goals. While TBL enhances reputation and efficiency, it also presents challenges like high initial costs [10]. The Resource-Based View highlights sustainability investments as strategic resources, offering cost savings, innovation, and competitive advantage [11, 12]. Financial health supports sustainability efforts, with strong companies better positioned to invest in green practices and innovation [13, 14]. Stakeholder theory [15] and signaling theory [16] further emphasize sustainability's role in enhancing stakeholder relationships, market signaling, and access to capital [17].

Institutional theory underscores external pressures like regulations in shaping sustainable practices [18], but intrinsic motivation ensures resilience to regulatory changes [19]. Thus, sustainability strategies foster long-term benefits through innovation, reduced risks, and improved market positioning [20, 21].

1.2Hypotheses development

1.2.1 Financial performance

Robust financial performance enables corporations to transition their strategic focus from short-term profitability to long-term objectives, including the integration of sustainability initiatives [22, 23]. In financially stable organizations, managers are more inclined to perceive environmental investments as strategic opportunities rather than financial burdens, thereby fostering innovation and promoting a proactive approach to sustainable business practices [24, 25]. Conversely, in firms with constrained financial resources, managerial priorities often center on immediate financial exigencies, which can hinder the adoption of sustainability-oriented strategies. This study explores the relationship between actual financial performance and managerial satisfaction with financial outcomes. Additionally, it examines the extent to which financial stability facilitates a proactive managerial orientation, fosters innovation-driven strategies, and enhances corporate engagement in sustainability practices.

H1. Real financial performance positively influences managerial financial satisfaction, proactive orientation, innovation orientation, and sustainability practices.

1.2.2 Sector difference

The transport sector is essential to economic progress but is a significant contributor to greenhouse gas emissions, with slower adoption of green technologies due to aging vehicle fleets and the high cost of technological upgrades [31]. In contrast, non-transport companies often face fewer structural barriers, allowing for more rapid integration of sustainable practices and innovative strategies.

This hypothesis explores the differences in proactive orientation, innovation orientation, and sustainability practices between transport and non-transport companies, highlighting sector-specific challenges and opportunities.

H2. Transport companies exhibit lower proactive orientation, innovation orientation, and sustainability practices compared to non-transport companies.

1.2.3 Company Age and Sustainability Practices

Younger companies are often founded during periods of heightened environmental awareness, making them more agile and receptive to incorporating sustainability into their strategies from the outset [29, 30]. These companies may prioritize proactive and innovative approaches to address ecological challenges. Conversely, older firms, con-strained by legacy systems and historical practices, may adopt green policies primarily to meet regulatory requirements rather than as a result of proactive or innovative motivations.

This hypothesis investigates the relationship between a company's age and its levels of proactive orientation, innovation orientation, and sustainability practices.

H3. Younger companies demonstrate higher proactive orientation, innovation orientation, and sustainability practices compared to older firm.

2. Materials and Methods

The first objective aims to review the number of new vehicles purchased in each development region of Romania in the timeframe 2001-2022.

Through the second objective, we propose to analyze a sample of 9,167 vehicles intended exclusively for road freight transport, whose maximum permissible laden weigh exceeds 7.5 tons, divided by the eight development regions of Romania. Thus, we propose to highlight how old the Romanian freight vehicle fleet is by each development region: Bucharest-Ilfov, Center, North-East, North-West, South-East, South-Muntenia, South-West Oltenia, and West. The purpose of this stage of the re-search is to validate the hypothesis according to which the older the cars are, the higher their fuel consumption, therefore resulting in a major negative impact primarily on the environment and on dependence on fossil fuels.

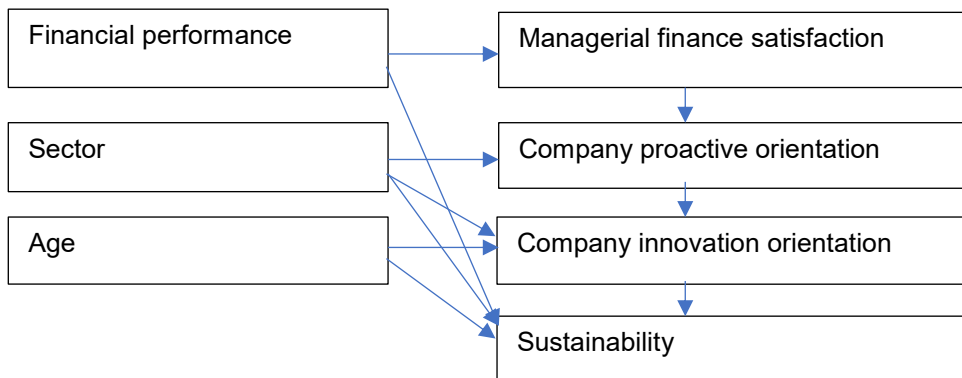


Figure 1. Research Model.

Soruce: Author

Hypotheses H1, H2, and H3 explore the key drivers that may influence green performance within Romanian corporations and investigate how specific attributes of Romanian companies shape their ecological performance and sustainability attitudes. Hypothesis H1 also delves into the psychological and cognitive dimensions of managerial decision-making. This framework ultimately aims to provide a nuanced understanding of how internal and external factors interact to shape corporate ecological performance in Romania.

2. Materials and Methods

2.1 Sample and Data Collection

To examine how managerial attitudes, company characteristics, and financial health influence environmental sustainability practices within Romanian corporations, data were collected via questionnaires from CEOs and CFOs of Romanian companies. The study used a combination of sampling techniques.

Convenience sampling [33] was employed to select participants based on accessibility and feasibility, while purposeful sampling [34] ensured the inclusion of representative companies of the Romanian business environment. Additionally, snowball sampling [35, 36] was utilized, leveraging initial respondents to recruit participants from a variety of industries, thereby broadening the scope of the study. The study employed a quantitative research method via an online survey. According to recent statistics, Romania has 1,414,809 registered companies, making representative sampling essential. The target respondents—CEOs and CFOs—were chosen for their expertise in both economic and green performance metrics. To determine the required sample size, the researchers set the estimated proportion to 0.5 and the power level to 0.95, yielding a minimum sample size of 385. To ensure robustness, 450 questionnaires were distributed, of which 444 valid responses were received, surpassing the minimum sample size required for analysis.

The study employed a practice-centered approach [37], focusing on managers' perspectives while disregarding demographic attributes, ensuring that demographic biases did not influence perceptions or judgments. Phenomenological approaches [38, 39] were utilized to capture managers' subjective experiences.

2.2 Data Analysis and Research Instrument

Data analysis focused on exploring "green performance" and "financial performance" across participating companies, with specific attention to the following factors: a) Industry Distribution: Companies were categorized into sectors such as manufacturing, food, healthcare, services, and finance. This distribution provided insights into sector-specific sustainability and financial performance practices; b) Company Age: Companies were grouped by age into categories such as very young (<12 years), young (12–24 years), and established (24+ years). The study highlights the predominance of younger companies and enabling an analysis of how age influences green and financial performance. Figure 2 shows the repartition of number of companies regarding their types and age.

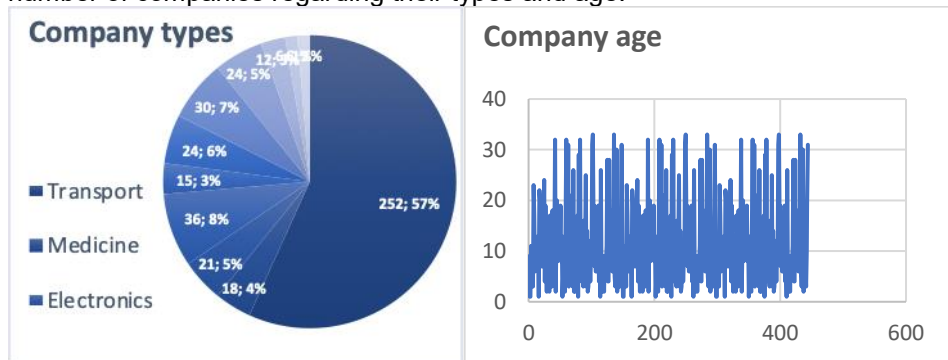


Figure 2. Sectorial breakdown and age distribution of companies in the dataset.

Source: Graph created by the author based on information received from private GPS monitoring companies in Romania.

The study ensured content validity through a pre-testing phase and semi-structured interviews with academic and industry experts familiar with business

strategy. This process led to minor adjustments in the questionnaire to enhance clarity. The research instrument used Likert scales (5-point) and semantic differentials for response options, ranging from "strongly disagree" (coded as 1) to "strongly agree" (coded as 5). The survey was conducted in Romanian, with translations following Brislin's [40] forward-backward translation method to ensure accuracy and consistency. To understand relationships between independent, moderating, and dependent variables, the authors conducted pairwise correlation analyses, confirming that all variables were interrelated. These findings facilitated the construction of the research model, capturing dependencies between financial health, innovation, proactive practices, and sustainability outcomes.

3. Results

3.1 Analysis of the real financial data for hypotheses (H1)

One critical question in this study is how to estimate the trustworthiness of the managers' responses in the dataset. Among the various parameters evaluated, the financial performance data stands out as the only block of parameters that can be independently validated using external sources. To this end, the authors refer to official documentation provided by the Ministry of Finance in Romania (2024), which includes data such as turnover, net profit, liabilities, fixed assets, circular assets, capital and reserves, and the average number of employees for each firm. In comparing the financial performance data from the official records with the survey responses, several challenges were encountered. The survey data includes metrics such as gross profit, return on assets (ROA), sales, earnings per share (EPS), and profit rate, which require mapping to their corresponding financial indicators by developing formulae to bridge the gap between the external data and survey responses, then transform the results of these formulae into a uniform ranking system (on a scale of 1 to 5) to minimize subjectivity.

Despite these efforts, full objectivity cannot be achieved due to subjective interpretations of financial performance. For instance, while one manager might consider a profit of \$10,000 per employee per year as exceptional, another might deem it unsatisfactory. Moreover, the financial data available in open-access sources may not fully reflect the companies' financial state, and factors such as company size, industry type, and other unmeasured variables may influence both actual and perceived performance. To further enhance the reliability of financial performance evaluations, the authors attempted to analyze trends over the past 2-3 years. However, this approach was limited by the availability of only single-year financial data for some companies and the diverse nature of financial metrics, making it difficult to accurately assess progress or regression. Nonetheless, the authors sought to validate whether the managers' subjective responses correlated with their financial performance, thereby ensuring that the conclusions are grounded in both subjective and objective data.

To address these challenges, the authors exclude from estimations Sales, Earnings per Share due to insufficient data for accurate estimation and Gross Profit was approximated as net profit, assuming a linear dependency between the two parameters. The Return on Assets (ROA) is a profitability metric that measures how

efficiently a company uses its assets to generate profit. Using the data, it can be calculated as

$$\text{ROA} = \text{Net Profit} / (\text{Fixed assets} + \text{Circular Assets}).$$

The Rate of Profit, also referred to as the Profitability Ratio, is calculated by comparing a company's profit to its sales (turnover). This ratio measures how efficiently a company generates profit relative to its total sales or revenue. The most common form of the Rate of Profit is the Net Profit Margin, which is expressed as

$$\text{Rate of Profit} = \text{Net Profit} / \text{Turnover}.$$

From the analysis of the data, the estimates for each of the parameters are closely aligned, allowing us to select one integral characteristic for the quantitative analysis. To obtain a more precise measure of Gross Profit, the following formula can be used:

$$\text{Real Profit} = \text{Turnover} + \text{Net Profit} - \text{Liabilities} +$$

$$\text{Fixed Assets} + \text{Current Assets} - \text{Capital}.$$

Next, these characteristics will be calculated from the database and divide them by the number of employees to obtain average values. To eliminate outliers and ensure the results fall within a reasonable range, replace any negative data in the calculations. Next, to map the calculated financial performance to a 1–5 scale, a novel ranking system was proposed as the usual uniform division of the data in the range from 0 to maximum value, is not effective within the data. The authors suggest to calculate the average value A of them, and consider it as the average mark - 3. Thus, the authors divide the calculated data by A and multiply by 3. The resulting scores were adjusted to fall within the range [0.5, 5.5] and rounded to the nearest integer. This way, the authors calculate the 1-5 range integer values for the financial performances and investigate the correlation between them and the corresponding values for the questionnaire.

The Table 1 presents the results of applying the same approach, including Pearson correlation coefficients with their p-values, Spearman correlation coefficients, and Kendall's Tau, to the data.

Table 1. Correlation coefficients between subjective and objective financial performances.

	Profit	ROA	Sales	EPS	Rate
Pearson correlation	0.313253	0.274114	0.313253	0.2813134	0.282349
Spearman correlation	0.343914	0.308546	0.308546	0.344184	0.329625
p-value	6.61556e-05	0.000748	0.000106	0.000533	0.000507

Source: Own calculations

The data reveal a weak linear relationship between the real profit estimations and managers' assessments, suggesting that while the managers' perceptions are not directly aligned with the actual financial state of their businesses, there is a slight correspondence. In other words, when a business performs well, managers tend to assess it positively, and when performance is poor, their evaluations reflect that as well. Additionally, the analysis shows a low correlation between real financial performance and proactive orientation parameters, indicating that proactive orientation is more influenced by managers' subjective perceptions of financial performance than by the actual financial results of the companies.

To test all sub-items of H1 hypothesis, the authors conducted a correlation analysis to examine the relationship between green performance and financial performance. This was done by creating histograms, dependency graphs for selected variable pairs, and testing the statistical significance of these relationships. Scatter plots were used to visually assess the connection between green performance (Y-data) and financial performance, innovation activities, and proactive orientations (X-data), revealing potential patterns in the data. A software solution generated scatter plots for each variable pair. Following the visual analysis, mathematical methods were applied to assess the impact of the variables and verify statistical significance at a 95% confidence level. These methods included Pearson Correlation for linear relationships, p-values for testing hypotheses without correlation, and pair and individual statistics to compare means of X and Y arrays and measure confidence intervals.

3.1.1 Managerial satisfaction:

The p-values for all parameters are nearly zero (with a maximum of 6.681962e-08), leading to the rejection of the null hypothesis, indicating a correlation in the data. To further analyze the relationships, Kendall's Tau, Pearson correlation coefficients, and Spearman's Rank Correlation Coefficients were calculated. The Pearson correlation coefficients for finance vs. ecological parameters are presented in Table 2, showing moderate correlations between financial performance parameters and ecological performance.

Table 2. Pearson correlation coefficients between financial and ecological parameters.

Finance parameter	Investment	Superiority	Reputation	Advantage
Brut	0.475009	0.451672	0.457395	0.426107
Profit	0.475009	0.451672	0.457395	0.426107
ROA	0.534273	0.50931	0.501177	0.441552
Sales	0.492854	0.456346	0.475342	0.43801
EPS	0.513717	0.499747	0.503604	0.462833
ROI	0.563941	0.532551	0.572841	0.516004
Rate	0.496409	0.485327	0.476414	0.458953

Source: Own calculations

Based on the analysis, there are no strong linear positive relationships between every pair of the parameters. To evaluate the relationship between ecological and financial performance, the mean values of both sets were found to be closely aligned (see Table 3). A paired t-test confirmed that the differences are normally distributed with a mean of one, suggesting a similar perception of financial and ecological performance on a 1-5 scale. Following a similar approach to analyze the relationships between financial perception and proactive orientation parameters (such as the use, anticipation, and implementation of new technologies, and R&D quality), the Pearson correlation coefficients are shown in Table 3.

Table 3. Pearson correlation coefficients between financial and ecological parameters.

Finance parameter	Usage	Anticipation	Implementation	R&D
Brut	0.3147	0.3166	0.3619	0.1380
Profit	0.3147	0.3166	0.3619	0.1380
ROA	0.3939	0.3865	0.4390	0.2139
Sales	0.3352	0.3194	0.3653	0.1973
EPS	0.5137	0.325	0.5036	0.4628
ROI	0.3557	0.3576	0.4064	0.2036
Rate	0.3101	0.3005	0.374	0.1862

Source: Own calculations

The p-value for all proactive parameters (usage, anticipation, and implementation) is below 0.002, indicating a positive influence of financial success on proactive orientation, though the effect is weaker compared to its impact on ecological performance. A weak correlation was found for the R&D parameter, with p-values ranging from 0.04 to 0.23, suggesting insufficient statistical significance. As a result, it is identified as an independent variable in the model. Paired t-statistics, performed to check the standard means of financial perception and proactive orientation parameters, further confirm that the proactive orientation parameters (anticipation, usage, and implementation of the latest technologies, as well as the R&D parameter) are statistically similar.

3.1.2 Proactivity:

Using the same analytical approach to assess the dependency between the proactive orientation of companies and their ecological orientation is presented in Table 4

Table 4. Pearson correlation coefficients between proactivity and ecological parameters.

Proactivity parameter	Investment	Superiority	Reputation	Advantage
Usage	0.486759	0.458815	0.462047	0.491229
Anticipation	0.479994	0.472283	0.476528	0.484429
Implementation	0.49239	0.50591	0.510216	0.527903
R&D	0.527903	0.477587	0.48248	0.507144

Source: Own calculations

The p-values for all parameters are almost zero (with a maximum value of $9.795415e-07$), leading to the rejection of the hypothesis that there is no correlation in the data. The results for Kendall's Tau and Spearman's Rank Correlation Coefficients further support this conclusion. The hypothesis that the means of the Proactivity and Ecological parameters are equal was tested using paired and individual t-statistics, which confirmed the equality. Therefore, proactive orientation parameters influence innovation and eco-logical performance parameters. Specifically, proactive orientation closely aligns with innovation orientation and impacts ecological policies within a company.

3.1.2 Managerial innovation

By applying the same analytical method to evaluate the relationship between companies' Innovation and their ecological orientation is shown in Table 5.

Table 5. Pearson correlation coefficients between innovation and ecological parameters.

Innovation parameter	Investment	Superiority	Reputation	Advantage
Activity	0.518528	0.41129	0.4376	0.373892
Novelty	0.526478	0.492545	0.495252	0.440965
Latest	0.515422	0.499071	0.449267	0.420069
Speed	0.476235	0.44546	0.438668	0.389703
Share	0.475906	0.434086	0.423374	0.390624

Source: Own calculations

The values of corresponding Spearman rates and Kendal's Tau are close to the above values. The p-values for all of the parameters are almost equal to zero (with maximum value is $9.795415e-07$), therefore, the hypothesis that the data have no correlation is rejected. Also, paired t-statistics shows the clear correspondence between all innovation parameters and ecological performance.

3.2 Statistical analysis of transport sector differences (H2)

3.2.2 Sectoral differences:

In the first part of the analysis, the authors assessed the state of Romania's cargo transport by examining statistics on vehicle age, including data from both the survey participants and the vehicle registration systems in Romania. The analysis reveals a significant portion of the fleet is outdated. The authors then explored whether the eco-logical performance reported by the companies correlates with the age of their vehicles and whether their fleet ages align with the national average.

Data from the vehicle registration systems were used to generate a histogram depicting the age distribution of the transport fleet as shown on Figure 3.

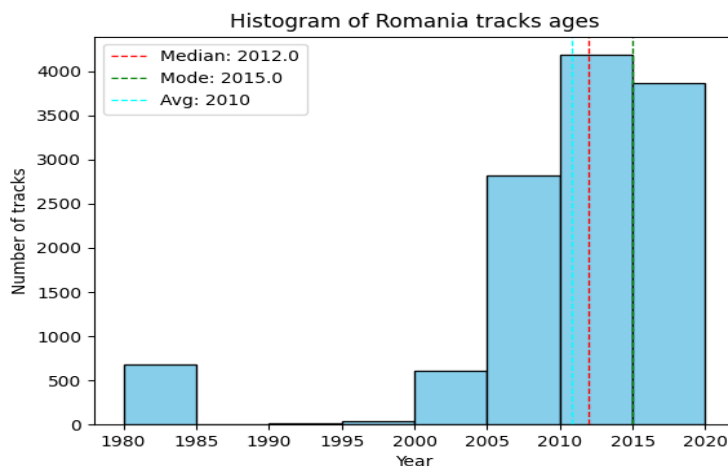


Figure 3. Histogram of tracks ages by years.

Source: created by the author based on information received from private GPS monitoring companies in Romania.

This graph analyzes a dataset of 12,861 vehicles used for road freight transport in Romania, focusing on the age distribution of the fleet. Most vehicles were manufactured in 2015, making them 9 years old in 2024. The fleet is divided between older vehicles (2000-2012) and newer models (2012-2024), with a significant number of older vehicles still in operation. This raises concerns about the fleet's efficiency, environmental impact, and maintenance requirements. Building on this, Figure 4 presents an analysis of the average vehicle ages for the companies included in the study.

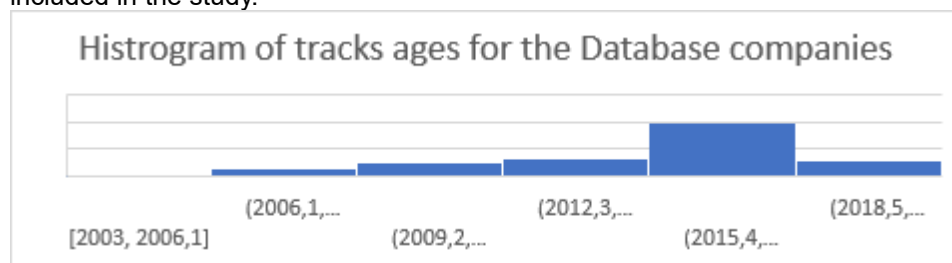


Figure 4. Histogram of average vehicle ages for the analyzed transport companies by year.

Source: created by the author based on information received from private GPS monitoring companies in Romania.

As observed, the companies in the study operate much newer vehicles compared to the broader Romanian transport fleet. This indicates that the sample

is comprised of more modern and ecologically oriented companies, with an average vehicle production year of 2015 or later, and the earliest production year being 2003. Several factors may explain this trend. As a result, it is not possible to precisely estimate the dependency between vehicle age and ecological performance. However, the analysis reveals weak linear relationships between the age of the vehicles and the estimated ecological performance.

Finally, the authors apply Mann-Whitney U Test to compare the distributions of transport and non-transport ecology parameters and to determine whether Transport samples tend to have lower values of ecological parameters than the corresponding values from the other sectors.

Table 6. Mann-Whitney U test results comparing transport and non-transport companies.

Ecology performance	Investment	Superiority	Reputation	Advantage	
	9.534347e-06	1.560169e-06	6.478530e-06	1.289193e-06	
Proactivity	Usage	Anticipation	Implementatio n	R&D	
	0.00013265	1.38587526e-05	5.7783234e-06	5.812045e-05-06	
Innovation	Activity	Novelty	Latest	Speed	Share
	3.9046e-05	0.000182	0.000275	4.07349e-05	2.74668e-05

Source: Own calculations

The results indicate that the p-values for these tests are very low, suggesting that transport companies exhibit significantly lower ecological performance compared to non-transport companies. Additionally, the proactive orientation and innovation parameters for transport companies are notably lower than the corresponding parameters observed in non-transport companies.

3.3 Maturity:

To test hypothesis H3, the authors grouped the data into six age categories, and calculated the Pearson correlation coefficients along with their p-values, Spearman correlation coefficients, and Kendall's Tau. The confidence level for rejecting the hypothesis was set to 0.95. The results are presented in Table 7:

Table 7. Correlation coefficients between ecological parameters and company ages.

Type of statistics	Investment	Superiority	Reputation	Advantage
Pearson correlation coefficients	0.072107	0.035746	0.049634	0.0274550
Spearman correlation	0.112537	0.085722	0.080322	0.0655316
Kendal's Tau	0.043435	0.0201592	0.016800	0.0027484

Source: Own calculations

The authors applied the same analysis to assess the relationship between the age of the company and the proactive and innovation parameters. The hypothesis that the age of company has no correlation with the Ecology group parameters must be rejected, indicating that the age of the company plays a significant role in ecological factors. The same analysis was conducted for the dependencies between the ages of companies and the Proactive Orientation parameters as shown in Table 8:

Table 8. Correlation coefficients between proactive orientation parameters and company ages.

Type of statistics	Usage	Anticipation	Implementation	R&D
Pearson correlation coefficients	-0.0663866	-0.01465	-0.0375657	-0.021184
Spearmen correlation	-0.017912	0.0330267	-0.00837167	0.0366675
Kendal's Tau	-0.0771497	-0.032507	-0.06887420	-0.028766

Source: Own calculations

The authors conducted the same analysis for the Innovation Orientation parameters, with the results presented in the Table 9:

Table 9. Correlation coefficients between innovation parameters and company ages.

Type of statistics	Activity	Novelty	Latest	Speed	Share
Pearson correlation coefficients	-0.042306	-0.0827225	-0.05232	-0.10398	-0.065416
Spearmen correlation	-0.007806	-0.0265467	0.020768	-0.05757	0.000303
Kendal's Tau	-0.050520	-0.0857069	-0.044099	-0.114359	-0.06193

Source: Own calculations

Based on the above tables, the hypothesis that the age of the company parameter has correlation with not only the Ecology group parameters but also the proactive orientation and innovation parameters is rejected. This indicates that the age of the company does not play a significant role in influencing the proactive and innovation parameters.

4. Discussion

Sustainability strategies play a crucial role in enhancing economic performance in Romanian companies, as this study demonstrates. Green policies, influenced by managerial satisfaction with financial performance, innovation, and proactive business practices, positively impact both ecological and economic outcomes. Companies that integrate sustainability through innovation and proactivity achieve improved financial performance by increasing efficiency, reducing costs, and enhancing their reputation. However, sector-specific challenges, particularly in the

transport industry, hinder the adoption of green policies, underscoring the need for tailored interventions.

Managerial satisfaction significantly influences green policy adoption. Companies with robust financial performance are more likely to invest in ecological initiatives, including green technologies and sustainability-driven reputation building. This aligns with findings by Menne et al. [22] and Makloufi et al. [24], which highlight the role of financial health in supporting innovation and long-term sustainability investments.

Managers who perceive themselves as innovative and proactive are instrumental in driving green policies. The study identifies significant correlations between proactive business strategies – such as R&D, early adoption of green technologies, and anticipating sustainability challenges – and improved ecological outcomes. These findings reinforce the interconnectedness of innovation, sustainability, and financial performance, consistent with previous studies [22,32]. Sector-specific barriers, particularly in transport, impede green policy adoption. Transport companies exhibit lower proactive orientation and ecological performance due to infrastructure and technological limitations. This finding supports the hypothesis that sectoral challenges significantly influence sustainability efforts, emphasizing the need for targeted investments and regulatory support in high-barrier industries.

Contrary to expectations, company age did not significantly affect sustainability adoption. Both younger and older companies were equally engaged in green practices, challenging the assumption that younger firms are more agile in sustainability efforts. Additionally, while a weak relationship was observed between managers' subjective financial health perceptions and objective financial outcomes, the former played a stronger role in driving proactive orientations, as noted by Zhong [33].

The results underline the importance of managerial attitudes, innovation, and sectorial support in advancing sustainability strategies. They demonstrate that integrating green practices into core business strategies fosters long-term economic and ecological benefits. For policymakers, the findings highlight the need for sector-specific measures, particularly for industries like transport, to overcome barriers to green technology adoption. For businesses, the emphasis on proactive and innovative managerial practices offers a roadmap to achieving sustainability while enhancing financial performance.

5. Conclusions

This study highlights the critical interplay between financial performance, proactive orientation, innovation, and ecological performance within Romanian companies. It finds that proactive orientation and innovation are key drivers of green policies, while financial performance plays an indirect supportive role. Companies with proactive strategies and innovative leadership are more successful in implementing sustainability practices, resulting in both ecological and economic benefits.

Despite progress in modernizing fleets, transport companies in Romania lag behind other industries in ecological performance, innovation, and proactive orientation, underscoring persistent challenges in adopting green practices. The study also reveals no significant link between company age and sustainability efforts, indicating that both younger and older companies can effectively embrace green policies.

Managerial perceptions of financial health generally align with actual financial performance, though these perceptions are influenced by subjective factors. Notably, proactive managerial strategies are shaped more by subjective financial perceptions than by objective financial data, highlighting the role of managerial bias in strategic decision-making.

The findings emphasize the importance of financial stability, innovation, and proactive strategies in driving corporate sustainability. While the study provides valuable insights, its focus on Romania limits broader applicability, calling for future research across different regions and industries. Ultimately, the research deepens understanding of corporate sustainability drivers and offers practical guidance for enhancing green policy adoption.

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