# The study on Corporate sustainability entrepreneurship in Romania: analysis on dependencies of economical state of the corporation on their green politics *through eyes of their management - Plan*

## Introduction:

In the contemporary global landscape, the concepts of sustainability and resilience have emerged as pivotal elements in shaping the strategic frameworks of corporations. Sustainability, often defined as the capacity to maintain or improve systems over the long term without depleting resources or harming natural cycles, has become increasingly significant in business practices. Resilience, on the other hand, pertains to an organization’s ability to adapt to disruptions and maintain functionality in the face of challenges, whether environmental, economic, or social.

The intersection of these two concepts is particularly relevant in the context of corporate sustainability entrepreneurship, where companies not only strive to achieve economic success but also aim to contribute positively to environmental and societal well-being. In this dual pursuit, the economic state of a corporation and its commitment to “green politics” — policies and practices aimed at reducing environmental impact — are deeply intertwined.

This study focuses on Romania, a country with a unique socio-economic landscape, to analyze how the economic health of corporations influences and is influenced by their sustainability efforts and environmental policies. By examining the dependencies between corporate economic performance and the adoption of green practices, this research seeks to contribute to a deeper understanding of the dynamic relationship between business success and environmental responsibility. The findings of this study aim to provide insights that can inform both corporate strategy and policy-making, highlighting the importance of integrating sustainability and resilience into the core of business operations in Romania and beyond.

## Literature review

The study of corporate sustainability and its relationship with economic performance has gained significant traction over the past few decades, reflecting a growing recognition of the importance of integrating environmental, social, and governance (ESG) factors into business practices. This literature review explores the key theoretical frameworks and empirical studies that have shaped our understanding of corporate sustainability, resilience, and their interplay with economic factors and green policies.

The concept of corporate sustainability, as outlined by Elkington (1997) in the Triple Bottom Line framework, emphasizes the need for businesses to balance economic, environmental, and social objectives. Numerous studies have examined the relationship between corporate sustainability and economic performance, with varying results. For instance, Orlitzky, Schmidt, and Rynes (2003) conducted a meta-analysis demonstrating a positive correlation between corporate social responsibility (CSR) and financial performance, suggesting that companies investing in sustainable practices often experience improved profitability.

However, the relationship is not always straightforward. Porter and van der Linde (1995) introduced the “Porter Hypothesis,” which posits that well-designed environmental regulations can stimulate innovation and, in turn, improve economic performance. Conversely, some studies argue that the costs associated with implementing sustainability initiatives can strain financial resources, particularly in the short term (Margolis & Walsh, 2003).

Resilience, often discussed in the context of environmental and organizational studies, is defined as the ability of a system to withstand and recover from disturbances (Holling, 1973). In the corporate context, resilience is increasingly linked to sustainability, with resilient organizations being those that can adapt to environmental and economic changes while maintaining their commitment to sustainable practices (Folke et al., 2010).

## Description of the problem:

In this section, each hypothesis will be explained in detail, outlining the rationale behind their formulation and how they are expected to contribute to the understanding of the relationship between financial performance, innovation, pro-active orientation, and green performance within Romanian corporations.

#### Hypothesis 1 (H1): The financial performances have any influence on the green performances

**Explanation:**

This hypothesis suggests that the financial performance of a corporation could influence its green performance, which refers to the extent and effectiveness of the company's environmental initiatives and sustainability practices. The underlying rationale for this hypothesis is that companies with strong financial performance may have more resources to invest in sustainable practices, such as reducing their carbon footprint, improving energy efficiency, or adopting eco-friendly technologies.

Companies with better financial health are likely to view investments in green practices not just as a compliance requirement but as a strategic move that can enhance their long-term competitiveness and brand reputation. Conversely, companies struggling financially might prioritize short-term survival over long-term sustainability, potentially leading to lower green performance. This hypothesis will be tested to understand whether financial success enables or encourages better green performance within Romanian corporations, or if the relationship is more complex.

#### Hypothesis 2 (H2): We want to see if innovation has any influence on green performance

**Explanation:**

This hypothesis aims to explore whether a corporation’s capacity for innovation has an impact on its green performance. Innovation, in this context, refers to the development and implementation of new ideas, processes, products, or technologies that can improve a company’s operations, efficiency, and market positioning.

Innovation is often closely linked to sustainability because it can drive the development of new solutions that reduce environmental impact. For example, innovative companies may pioneer new manufacturing processes that use fewer natural resources or create products that are more energy-efficient. This hypothesis suggests that companies that are more innovative may also be more capable of improving their green performance, as they can better identify and capitalize on opportunities for sustainability. The analysis will examine if this correlation exists within the Romanian corporate context.

#### Hypothesis 3 (H3): We want to see if pro-active orientation has any influence on the green performances

**Explanation:**

This hypothesis examines whether a company’s proactive orientation influences its green performance. Proactive orientation refers to a company's forward-thinking and anticipatory approach to business challenges and opportunities, particularly in areas like environmental sustainability.

A company with a proactive orientation does not wait for regulatory pressures or market demands to adopt green practices; instead, it actively seeks out ways to improve its environmental performance ahead of industry trends or legal requirements. Such companies might invest in sustainability initiatives, engage in corporate social responsibility (CSR) activities, or set ambitious environmental goals that exceed regulatory standards.

This hypothesis suggests that a proactive orientation could lead to better green performance because companies that take the initiative in sustainability are likely to implement more comprehensive and effective environmental strategies. The research will determine if this proactive behavior is indeed linked to superior green performance in Romanian corporations, and how significant this influence is.

#### Hypothesis F1: Firms whose field is not connected to real connections to the ecology tend to overrate their ecological performances

**Explanation:**

This hypothesis posits that companies operating in industries or fields that are not directly related to environmental or ecological activities may have a tendency to overrate or exaggerate their ecological performance. The rationale behind this hypothesis is rooted in the concept of "greenwashing," where companies claim to be more environmentally responsible than they actually are, often to enhance their public image, satisfy stakeholder expectations, or comply with regulatory requirements.

Companies in sectors such as technology, finance, or services, which may not have direct interactions with ecological issues like pollution control, waste management, or natural resource usage, might not have a thorough understanding or robust metrics for measuring their true environmental impact. Consequently, they might overestimate their green performance either due to a lack of knowledge or as a strategic move to align with growing consumer demand for sustainability.

This hypothesis will explore whether firms in non-ecologically connected industries in Romania are more likely to report higher ecological performance than what is actually reflected in their practices. The study will analyze whether this tendency is a common practice, and if so, what factors contribute to this overrating of ecological efforts.

#### Hypothesis A1: Companies with less ages are more prone to take care for ecology

**Explanation:**

This hypothesis suggests that younger companies, or those that have been established more recently, are more likely to be concerned with and actively engaged in ecological or environmental sustainability practices. The rationale behind this hypothesis is that newer companies are often founded during a period when sustainability and environmental responsibility are increasingly recognized as critical business imperatives.

Younger companies are more likely to be influenced by contemporary trends, regulations, and societal expectations that prioritize sustainability. They may also be more agile and adaptable in integrating green practices into their operations from the outset, as opposed to older companies that might have established practices and infrastructures less aligned with modern sustainability standards. Moreover, startups and younger firms might see sustainability as a differentiator in a competitive market, using it to appeal to environmentally conscious consumers and investors.

The hypothesis will be tested to determine if there is a significant correlation between the age of a company and its commitment to ecological practices within the Romanian context. The research will explore whether younger companies are indeed more proactive in their ecological responsibilities compared to their older counterparts, and what drives this potential difference in behavior.

#### Hypothesis R1: Good financial performance leads to corresponding good subjective estimation of financial performances

**Explanation:**

This hypothesis suggests that when a company experiences strong financial performance, the personnel within the company are likely to perceive and report their financial situation positively. The rationale behind this hypothesis is based on cognitive bias, where individuals' subjective perceptions are influenced by actual performance outcomes.

When financial indicators such as revenue, profit margins, and market share are favorable, employees, managers, and stakeholders may develop a positive outlook, leading them to estimate their financial performance as good or even better than it might objectively be. This hypothesis will be tested to see if there is a significant correlation between actual financial performance metrics and the subjective evaluations provided by the company’s personnel.

#### Hypothesis R2: Personnel that tends to overrate financial performance tend to overrate sustainability

**Explanation:**

This hypothesis posits that individuals within a company who have a tendency to overestimate or exaggerate their company’s financial performance are also likely to overrate the company’s sustainability efforts. The underlying logic here is that certain cognitive biases, such as optimism bias, might cause individuals to view their company’s overall performance—including both financial and environmental aspects—through a more favorable lens than what is objectively warranted.

People who overrate financial performance may be driven by a desire to present their company in the best possible light, or they might genuinely believe that strong financial health equates to strong sustainability performance, even if the latter is not necessarily true. This hypothesis aims to explore whether there is a pattern of overestimation across different aspects of company performance, suggesting a more general tendency to positively skew self-assessments.

#### Hypothesis R3: Personnel that tends to underrate financial performance tend to underrate sustainability

**Explanation:**

Conversely, this hypothesis suggests that individuals who tend to underestimate or underrate their company’s financial performance are also likely to have a more pessimistic view of the company’s sustainability efforts. The rationale here is that cognitive biases can also lead to a negative skew in perceptions, where a less favorable view of financial performance might be accompanied by similarly critical assessments of other areas, including sustainability.

Personnel who underrate financial performance may do so because of a cautious or risk-averse mindset, which could extend to how they perceive their company’s environmental and social initiatives. They might believe that if the company is struggling financially, it is less likely to be effectively investing in sustainability, even if that is not objectively the case. This hypothesis will test whether a pattern of underrating exists across different performance domains within companies, highlighting how perceptions in one area can influence others.

### Summary

The hypotheses H1-H3 are designed to explore the various factors that might influence green performance within corporations, specifically in the Romanian context. The results of testing these hypotheses will provide insights into how financial health, innovation, and a proactive approach to business are related to a company's environmental sustainability efforts. By understanding these relationships, the study aims to contribute to the development of more effective strategies for enhancing corporate green performance, both in Romania and potentially in other emerging markets.

The hypotheses (F1 and A1) are designed to investigate how different characteristics of companies, such as their industry field and age, influence their ecological performance and attitudes towards sustainability. Understanding these relationships can provide valuable insights into how and why certain companies engage in ecological practices, potentially guiding future corporate strategies and policies aimed at improving environmental sustainability across various sectors in Romania.

The hypotheses (R1, R2, and R3) are designed to explore the psychological and cognitive factors that influence how company personnel perceive and evaluate both financial performance and sustainability efforts. By examining the correlations between subjective estimations of financial health and sustainability, the study seeks to understand whether certain biases or tendencies are consistent across different aspects of corporate performance. This analysis will contribute to a deeper understanding of how internal perceptions shape the reporting and assessment of a company's overall performance in the Romanian context.

## Method

Description of the questionnaire and the way the data were gathered

Analysis of the obtained data. (Histograms on Fields and Number of Employers(avg), Age of Companies)

After obtaining the data on the "green performance" and "financial performance" of the companies included in the study, we can do the analysis of them. The analysis includes an examination of the distribution of companies across different fields, an evaluation of the average number of employees, and the age of companies in the sample. Histograms are used to visually represent these distributions.

#### 1. **Distribution of Companies by Field**

The data set includes companies from a variety of fields, which allows for a broad analysis of how different industries approach green performance and financial performance. The fields represented in the data include transport, manufacturing, food, medicine, services, finance, and others.

A histogram below shows of the distribution of companies by field shows the frequency of companies in each industry. This analysis helps in understanding the representation of different sectors in the study and whether certain industries are more inclined towards green performance.

The histogram indicates that field of transport is the most heavily represented (84 from 148) in our data.

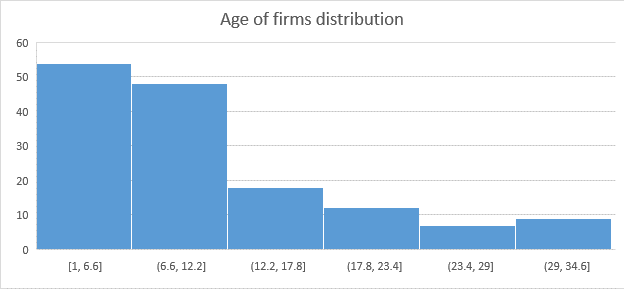
#### 2. **Number of Employees**

The average number of employees per company is an important factor that could influence both financial and green performance. Larger companies might have more resources to invest in sustainability initiatives, while smaller companies may face more constraints. We consider large companies, as those with number of employees greater then 1000, while mid-range companies are with workers within range 20-100. All the other companies are considered small range companies. In our list of companies, we have only 2 large companies and 8 companies of middle size, while the overwhelming majority of our companies could be considered small ones. Our distribution suggests that small-sized enterprises are well-represented in the data, which may be typical for the Romanian market.

#### 3. **Age of Companies**

The age of the companies in the sample is another critical variable, as it can influence their approach to both financial management and sustainability practices. Younger companies might be more agile and innovative in their green practices, while older companies might have more established processes and a historical track record to consider.

A presented histogram below shows the age distribution of companies in the sample shows how long these companies have been in operation. The histogram helps to identify whether the sample includes a balanced mix of young and old companies or if there is a predominance of companies from a particular age group.



The distribution is close to exponential, that is how this distribution should be from theoretical point of view. The histogram indicates a broad age range, with a substantial number of very young companies (e.g., less than 12 years old) and young companies (from 12 to 24 y.o). However, we get a significant representation of middle-age companies (from 24 to 40), and old companies. This distribution allows for an analysis of how company age might correlate with green performance and financial outcomes.

The analysis presented in this chapter provides a detailed overview of the companies included in the study, focusing on their distribution by field, number of employees, and age. The use of histograms and other descriptive statistics allows for a clear understanding of the sample's characteristics and sets the stage for more in-depth analysis of the relationship between green performance and financial performance. These initial insights will guide the subsequent analytical steps, helping to test the study's hypotheses and draw meaningful conclusions about the factors influencing corporate sustainability in Romania.

Methods

The core variables of interest in this study are green performance and financial performance. Green performance is assessed based on a variety of metrics, including energy efficiency, waste reduction, and sustainability reporting, while financial performance is evaluated using traditional financial metrics like revenue growth, profitability, and return on investment.

A correlation analysis will be performed to explore the relationship between green performance and financial performance across the sample. This analysis will provide preliminary insights into whether companies that perform well financially also tend to have better green performance, and vice versa.

Scatter plots will be used to visually examine the relationship between green performance and financial performance, potentially revealing trends or patterns in the data.

## Results

Analysis of the correlation between the questionnaire Financial/Ecology data

Analysis of the real Financial data: estimation of real performance

Analysis of the correlation between Real Performance and Subjective performance

Analysis of Sustainability on different field results

Analysis of Sustainability on different company’s ages

## Conclusion

Hello, dear Diana!

I have done some analysis of our data as we discussed.

Here are my outcomes:

1) Initial hypotheses H1-H3 are looking valid and confirmed

2) Regarding hypothesis A1 about age of companies:

Looks like there is almost no correlation between age and green performances

3) Regarding hypothesis A1 about fields/domain of companies:

Indeed, there are some dependencies across field, but unlike my initial proposition, relevant fields look more green-friendly.

However, unfortunately, our data on firm fields are biased to Transport, and little to other fields, so these results are not reliable enough.

4) However, we can turn this shortcoming to feature: as we can divide our statistics on Transport/Others, we can investigate green performance on Transport vs Other (R2). And here, I came to the interesting result: It looks like, Green performances of Transport is WORSE than on the Other fields

5) The propositions R1-R3 are happened to be much more complex to check. My current analysis got me to the conclusion, that managers estimations of the financial performances are not always directly corresponding to the actual statistic data (which I was expecting in my proposition). That may be caused by different reasons, including of non-relevancy of my method, differences in interpretation of financial statistics for the different firms, so on.

We can delve into this problem more, to me it looks rather fascinating direction of the research, but it may require further contemplations on the methods of the research (I think it may deserve another article).

Best regards, Viktor