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Exploring the Influence of Corporate Governance on the Financial Performance. Case Study of the Energy Sector

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Abstract: *Given the region's commitment to sustainable and renewable energy sources as well as its reliance on conventional fossil fuels, the energy industry in Europe shines in the light of contemporary economies. The European energy industry is at a turning point and is prepared to change in response to new environmental concerns and shifting market dynamics. This paper aims to investigate whether the corporate governance score (GOV) of companies operating in the energy sector is associated with their corporate financial performance (CFP). The research covered data from 103 companies in the energy sector collected from Thomson Reuters Eikon for the period 2017-2021. The research used the regression and correlation analysis between GOV performance and its components and an accounting-based measure of profitability: total revenue. The data used in this study were analyzed using SPSS Software. The results show a partial but positive correlation between the management mechanisms on financial performance and a full positive influence of CSR strategy on financial performance; the shareholder score shows no impact. The energy sector is an environmentally sensitive yet understudied industry, and the present research helps to determine what has to be improved from a sustainability point of view.*

1. INTRODUCTION

In recent years, industries and researchers have come to place greater emphasis on corporate sustainability. Corporate sustainability strategies and activities are essential for today's organizations, especially those whose success depends largely on their sustainability initiatives, to address these concerns. The whole world is currently facing several social and environmental challenges due to global population growth and the increasing risk of climate change.

Corporate governance is the third pillar of ESG (environmental, social, and governance) factors and can be defined as a set of methods and mechanisms that when applied, streamline the management and control of a company to improve its performance and value (Pintea et al., 2020, p. 2). This definition underlines the indispensability of corporate governance within a company. A similar definition mentions that it is a structure that not only improves the relationships between various parties (shareholders, managers, and investors) but also ensures the appropriate distribution of resources among competing parties, providing structures for formulating the company's objectives and determining how to achieve them, as well as assessing whether or not the objectives are being met (Al-ahdal et al., 2020, p. 2). In assent to the previous statement, it can be added that effective corporate governance enables shareholders to exercise appropriate oversight of a company to maximize the value of the company and ensure that its investments generate returns. Managers may take excessive risks due to the lack of effective corporate governance processes, thereby increasing the chances of insolvency (Liang et al., 2020, p. 137). The purpose of this article is to determine whether and under what conditions corporate governance performance impacts financial performance.

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2. LITERATURE REVIEW

The literature provides a vast amount of research exploring the sensitive relationship between governance performance and financial performance; however, the results of current studies continue to differ. Considering the number of publications referring to the relationship between financial and corporate governance performance, it can be stated that the interest is continuously growing in the last twenty years (Wahyuningrum et al., 2023, p. 2). To support sustainable economic growth and business sector development, corporate governance has become a crucial factor for both developed and emerging countries. Rodriguez-Fernandez (2015) argues that good corporate governance performance leads to financial benefits and the relationship between the two is bi-directional, and given that the way the two performances correlate depends on the degree of sustainability sensitivity of the industry. Mixed results can also be driven by the lack of interest of companies to invest in sustainability, and one of the reasons why companies do not invest in corporate governance mechanisms is because the cost of implementation outweighs the results achieved (Freire et al., 2020, p. 150).

Remo-Diez et al. (2023) analyze the relationship between ESG issues and financial performance in a sample of 185 companies, concluding that the governance score does not influence the evolution of return on assets. On the other hand, Gonçalves et al. (2023) obtain mixed results on the governance score, but argue that the adoption of corporate governance mechanisms does indeed influence financial performance. Their findings are supported by a large study of 252 companies listed on the London Stock Exchange in 2014, where Kyere and Ausloos (2021) analyze corporate governance components concerning return on assets obtaining statistically significant results for governance components: board size, board independence and audit committees and statistically insignificant results for CEO duality and insider shareholder. Another mixed result is obtained by Haque and Arun (2016) who claim the existence of a positive and significant relationship between corporate governance quality and companies' net marginal return despite determining a statistically insignificant result in the research on the relationship between the overall governance indicator and ROA and ROE.

Another perspective in analyzing the relationship between the two performances is obtained by authors Naeem et al. (2022), who use sustainably sensitive companies from emerging and developed countries in their analysis, suggesting that good governance can positively affect ROE in developed countries. Siminică et al. (2019) studied the relationship between corporate governance and financial performance, represented by ROA and ROE, on a sample of 614 companies in the European Economic Area, establishing a clear relationship between the two, agreeing with the results obtained by Mahrani and Soewarno (2018). According to authors Temba et al. (2023), the financial performance of commercial banks in Tanzania is positively influenced by corporate governance performance, especially components such as board gender diversity, board size, director shareholding and audit presence. Considering other component variables of governance performance, Zelalem et al. (2022) analyze the relationship in insurance companies using ROA and ROE as determinants of financial performance and find a positive and significant impact when it comes to board size, transparency, board remuneration and management soundness.

Affes and Jarboui (2023) use multivariate regression to analyze the impact between the two performances on a sample of 160 companies from different sectors over the period 2005-2018 and find that the implementation of good governance mechanisms leads to an improvement in financial performance when measured by ROE. Also, Statovci et al. (2023) analyze the impact of the two performances and find, using linear regression, fixed-effects, random effects and trend analysis, that financial reporting transparency has a positive effect on financial performance. Considering also the time variable, Nawaz and Ohlrogge (2020) take a longitudinal approach, with a focus on Deutsche Bank in 1957-2019, and state that the presence of gender diversity on boards of directors, a component of corporate governance, has a positive effect on financial performance. Analyzing the present issue also from the point of view of the degree of sensitivity to sustainable factors of the analyzed industry, Bigioi & Bigioi (2023) and Zehir et al. (2023) observe the existence of an impact between governance performance on financial performance for companies in the energy sector.

This research aims to examine the relationship between corporate governance performance and financial performance of energy companies in Europe, based on the assumption that improving or implementing corporate governance can affect the efficiency of these companies' operations.

3. RESEARCH METHODOLOGY

The purpose of this paper is to determine whether there is a relationship between corporate governance performance and financial performance, and the total corporate governance pillar percentage score will be used. Given the relational differences between the two performances when the governance components are also analyzed, the constituent variables such as management score, shareholder score and CSR strategy score will also be considered independently. By obtaining and aggregating the scores of 56 variables from the published information of public companies, Refinitiv Eikon generates the governance score (Environmental, Social and Governance Scores from Refinitiv, 2022, p. 6), and this is the independent variable in the chosen calculation models. The normalization of score weights occurs using percentages that range from 0 to 100, where the maximum value of 100 indicates high reporting transparency and excellent governance performance. The high degree of uniqueness and plausibility of the information used to calculate these scores is given by the fact that they are disclosed directly by companies. Financial performance plays the role of the dependent variable and is determined through total revenue, also information about this is collected from the Thomson Reuters Eikon platform for companies with accessible Governance Scores.

The statistical analysis, which covers a data range from 2017-2021, is based on a sample of 103 listed companies in the European energy sector, and the data presented in the tables are expressed in US dollars, which is also one of the world's major currencies. The variables used in the statistical analyses are described as follows:

Table 1. Variable description

Variable name	**Symbol variable**	**Type of variable**	**Significance**
Total revenue	TR	dependent	the total income a business generates from all of its goods and services
Governance Score	GOV	independent	establishing an operational structure that is in line with the goals of the company's shareholders and guaranteeing reporting transparency
CSR Strategy Score	CSRS	independent	incorporates data regarding the CSR strategy developed and the ESG reporting and transparency
Management Score	MS	independent	incorporates data regarding the structure of the management and the compensation
Shareholder Score	SS	independent	incorporates data regarding the shareholder rights and the takeover defense

Source: Own processing

The subsequent analysis is based on the following main hypotheses to investigate whether governance score and financial performance in energy sector companies are correlated:

Hypothesis One: There is a link between corporate governance performance and financial performance in companies operating in the energy sector.

The primary hypothesis leads to a series of supporting hypotheses such as:

Hypothesis Two: The component variable - CSR strategy score has a significant effect on the financial performance of companies in the energy sector.

Hypothesis Three: The component variable - Management score has a significant effect on the financial performance of companies in the energy sector.

Hypothesis Four: The component variable - Shareholder score has a significant effect on the financial performance of companies in the energy sector.

Whereas, if the above hypotheses prove to be true, then companies with high governance performance result in better financial performance than companies with low or no such performance, leading to a subsidiary hypothesis:

Hypothesis Five: The intensity of the relationship between corporate governance score and financial performance increases as a result of the increase in governance factors.

The validation or invalidation of the above-mentioned hypotheses is conducted through regression analysis and correlation analysis between the two performances.

4. RESULTS AND DISCUSSION

4.1. Results of Correlation Analysis

Assuming that the data are normally distributed, the Pearson correlation coefficient, representing the basis of the correlation analysis, is determined for the corporate governance and financial performance score components using SPSS software (Table 2). Data analysis is performed for each year of the 2017-2021 period. The last matrix presents the data analysis for the whole period.

Correlation analysis is a statistical technique used to assess the type and degree of relationship between two or more independent variables. Correlation analysis reveals significant relationships between several variables and financial performance. The correlation matrix (Table 2) indicates that there is a direct and positive correlation of low intensity between the MS and CSRS variables, and the 1% and 5% significance levels of the Pearson correlation coefficient indicate that the relationship is statistically significant. Also, no statistically significant relationship was observed between total revenue and shareholder score, thus hypothesis three becomes invalid; hypotheses one and two are validated by determining a Pearson correlation coefficient with a positive and statistically significant value. It is found that the total revenues of energy companies in Europe are influenced by the implementation of sustainability strategies, transparency, and non-financial reporting that provide confidence as well as by the structure of management through management decisions and less influenced by shareholder rights and actions.

Table 2. Pearson Correlation

2017	MS	SS	CSRS	TR	2018	MS	SS	CSRS	TR
MS	1				MS	1			
SS	0.133	1			SS	.320**	1		
CSRS	.445**	-0.021	1		CSRS	.493**	0.071	1	
TR	0.154	-0.123	.278*	1	TR	0.199	0.095	.331**	1
2019	**MS**	**SS**	**CSRS**	**TR**	**2020**	**MS**	**SS**	**CSRS**	**TR**
MS	1				MS	1			
SS	.371**	1			SS	0.134	1		
CSRS	.506**	0.000	1		CSRS	.512**	0.077	1	
TR	.299*	0.080	.377**	1	TR	.336**	0.170	.375**	1
2021	**MS**	**SS**	**CSRS**	**TR**	**Total**	**MS**	**SS**	**CSRS**	**TR**
MS	1				MS	1			
SS	0.147	1			SS	.238**	1		
CSRS	.552**	0.093	1		CSRS	.517**	0.063	1	
TR	.328**	0.153	.373**	1	TR	.261**	0.077	.337**	1

Note: **significant at the 1% level, *significant at the 5% level.

Source: Own calculations

Table 3. Evolution of Pearson correlation coefficient. between GOV score and CFP

Year	2017	2018	2019	2020	2021	Total
Pearson corr. coeff.	0.151	.238*	.321**	.386**	.372**	.289**

Note: **significant at the 1% level, *significant at the 5% level.

Source: Own processing

The results shown in Table 3 validate hypothesis one (there is a link between corporate governance performance and financial performance for companies operating in the energy sector) with a weak and positive but statistically significant link between corporate governance performance and financial performance. There is a significant increase in the intensity between the two performances over the period under analysis, and considering the increase in the intensity of the link between some component variables and total revenues, observable in Table 2, it can be stated that the intensity of the relationship between corporate governance score and financial performance increases as a result of the intensification of governance factors, thus hypothesis five is partially validated.

4.2. Results of Linear Regression Analysis

The type of relationship between the independent variables (governance score and its components) and the dependent variable (financial performance as measured by total revenue) is reflected in the linear regression analysis, and the SPSS statistical software is used to run the regression models for the selected sample. The governance performance score, GOV, is derived from the MS, SS and CSRS scores, which is why only the three component variables are used as independent variables and total revenue, TR, as the dependent variable in the linear regression to determine the variation in financial performance through governance performance.

For the whole period analyzed, the results of the regression analysis show that 12.5% of the total variation in total revenues of energy companies can be explained by the component variables of the governance score, resulting in the validation of the primary hypothesis and its derivatives. According to Table 4 and Table 5, the p-value results confirm the linear relationships between total governance performance composed of the three dimensions (MS, SS, CSRS) and total revenues, being well below the acceptance level ($p < 0.05$), except for the results of 2017, which do not reject the null hypothesis.

Table 4. Multiple linear regression of GOV and CFP variables

Year of analysis	Regression Weights	R^2	F	p-value	Hypothesis supported
2017	MS, SS, CSRS → TR	.094	2.349	0.080	NO
2018	MS, SS, CSRS → TR	.115	2.954	0.039	YES
2019	MS, SS, CSRS → TR	.159	4.271	0.008	YES
2020	MS, SS, CSRS → TR	.184	5.120	0.003	YES
2021	MS, SS, CSRS → TR	.171	4.675	0.005	YES
Total	MS, SS, CSRS → TR	.125	16.910	0.000	YES

Source: Own processing

Table 5. Multiple linear regression coefficients

2017						
Term	**Coeff.**	**SE Coeff.**	**t**	**p**	**Collinearity sts.**	
					Tolerance	**VIF**
Constant	0.044	2.314	.191	.849		
MS	0.118	0.260	.456	.650	.782	1.279
SS	-0.270	0.250	-1.077	.285	.974	1.026
CSRS	0.479	0.249	1.923	.059	.795	1.258
2018						
Term	**Coeff.**	**SE Coeff.**	**t**	**p**	**Collinearity sts.**	
					Tolerance	**VIF**
Constant	-1.969	1.763	-1.117	.268		
MS	0.036	0.220	.165	.869	.675	1.480
SS	0.125	0.233	.538	.592	.888	1.127
CSRS	0.507	0.211	2.393	.019	.749	1.335
2019						
Term	**Coeff.**	**SE Coeff.**	**t**	**p**	**Collinearity sts.**	
					Tolerance	**VIF**
Constant	-3.457	1.696	-2.039	.045		
MS	0.310	0.222	1.392	.168	.728	1.373
SS	0.249	0.219	1.133	.261	.982	1.018
CSRS	0.474	0.022	2.150	.035	.737	1.356
2020						
Term	**Coeff.**	**SE Coeff.**	**t**	**p**	**Collinearity sts.**	
					Tolerance	**VIF**
Constant	-1.751	1.266	-1.383	.171		
MS	0.389	0.166	2.342	.022	.703	1.423
SS	0.044	0.169	.263	.794	.815	1.227
CSRS	1.508	0.165	.910	.366	.606	1.650
2021						
Term	**Coeff.**	**SE Coeff.**	**t**	**p**	**Collinearity sts.**	
					Tolerance	**VIF**
Constant	-3.103	1.905	-1.629	.108		
MS	0.530	0.256	2.066	.043	.695	1.439
SS	0.252	0.273	.925	.358	.978	1.022
CSRS	0.317	0.260	1.216	.228	.686	1.458
Total period						
Term	**Coeff.**	**SE Coeff.**	**t**	**p**	**Collinearity sts.**	
					Tolerance	**VIF**
Constant	-1.979	0.780	-2.534	.012		
MS	0.018	0.010	1.817	.070	.691	1.448
SS	0.006	0.010	.665	.506	.938	1.066
CSRS	0.047	0.009	4.798	.000	.729	1.372

Source: Own processing

The regression model calculated for the whole period is as follows:

$$TR_{TOTAL}=-1.979+0.018*MS_{TOTAL}+0.006*SS_{TOTAL}+0.047*CSRS_{TOTAL} \quad (1)$$

where TR represents the total revenues of companies measuring financial performance, MS represents the management score, SS refers to the score on shareholder characterization and actions, CSRS determines the score on the companies' sustainable strategies, and TOTAL refers to the analysis of total scores and revenues over the entire period analyzed.

Since the values in the correlation matrix table are greater than 0.60, the explanatory results obtained for the corporate governance variables have a unique contribution to the model and are not strongly correlated with each other. The results indicate that multicollinearity is not an issue.

In the energy sector, governance performance is crucial for risk mitigation, confidence building, compliance, as well as long-term sustainability and business success in a dynamic and rapidly changing market, as evidenced by the evolution of R-square over the period under review. According to the results, among energy companies, better financial performance is directly correlated with a higher governance score. The conclusion is based on several factors, such as transparency in board appointments leading to the selection of highly qualified individuals, the implementation of risk management systems increasing efficiency, and specialized committees such as the audit committee improving corporate decision-making. Investor confidence is enhanced by employing statutory auditors, along with greater transparency in financial reporting.

5. CONCLUSION

The close relationship between corporate governance and a company's financial performance has been intensively studied in recent decades. To ensure good governance, the importance of fundamentals such as fairness, responsible management, and transparency must be emphasized. These principles are the essential pillars on which any effective corporate governance system should rest. This research provides valuable insights into the link between the two performances, with specific application to the energy sector market. The sustainability of a company's operations depends on improved financial performance, which in turn contributes to strengthening corporate governance procedures. Improving financial performance thus becomes a key catalyst for competitive companies in this market, positively influencing their long-term evolution. Limitations should be set on the fact that the current study is constrained by the period in which it was conducted; longer-term studies will be designed to examine the relationship between the two performances more thoroughly.

Future research should also include adding additional variables such as size, age and leverage, or further analysis of governance factors such as board characteristics. These factors, especially those related to ESG activities, are considered critical in explaining variations between governance configurations adopted.

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