THE IMPACT OF SOCIAL RESPONSIBILITY ON FINANCIAL PERFORMANCE: EVIDENCE FROM ROMANIAN COMPANIES

Nour Lakiss [1]*

[1] The Bucharest University of Economic Studies, Bucharest, Romania.

Abstract

This study aims to assess the impact of corporate social responsibility (CSR) on the financial performance (PF) of Romanian companies to provide a practical framework for measuring the performance of companies. The financial performance of the company considered as a dependent variable was established through accounting measures (ROA, ROE, ROIC, EPS), liquidity measure (current ratio), and market-based measure (PBV). Based on a regression analysis, the results showed that CSR positively influences EPS but has no influence on ROA, ROE, ROIC, and PBV. The variable CA/ANG had a negative influence on ROA in the first model, a negative influence on ROE in the first model (where the total number of employees represents the size of the company and the ratio Long-term debt / Equity ratio represents the debt). In addition, CA/ANG had positive in the second model (where the total assets represent the size of the company and the ratio Total debt / Equity represents the debt), a negative influence in the two models of ROIC, and a positive influence on the PBV. Concerning size measures, the total number of employees positively influences ROA and PBV. For debt, the variable DT_CP has a negative influence on ROE and ROIC while the variable DTL_CP positively influences ROIC and negatively the PBV. The two models where liquidity ratio was used as the dependent variable were not statistically validated.

Keywords
Corporate social responsibility, financial performance, accounting-based measures, market-based measures, regression

Introduction
Recently, the expectations in terms of CSR are demanding; namely, the companies are facing increasing pressure, hence the need to carry out their activities by taking into

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* Corresponding author, **Nour Lakiss** – lakissnour@gmail.com

account the social and environmental consequences and maintaining their profitability. Companies must be socially responsible in the production and redistribution of the profit generated between different stakeholders. (Capron, 2000). They must integrate the idea of sustainability into their activities by considering the environmental changes in terms of the impact of the limited resources, which may affect their financial performance.

Moreover, sustainable development is a new opportunity for the quality of economic growth and the distribution of its benefits to all layers of society, not just a process of economic expansion but also a process for creating value which derives from more proactive and better-controlled risk management (Olivier, 2002). Several studies have shown that the sensitivity to sustainable development topics has already had a significant influence on corporate behaviour (Olivier, 2002).

The current era of globalization causes companies to use their resources to help and solve social problems within the communities they manage. The two claim that companies' involvement in stable relationships with the stakeholders and the efficient use of resources will increase the shareholders' income and help the company develop intangible assets that will serve as valuable competitive resources compared to other companies. Companies must achieve their business goals and profit through their social impact by complying with the business ethics in society's service (Simionescu and Gherghina, 2014).

CSR practices are adopted either because of the government's pressure or because of the benefits they have for the companies (Dumitrescu and Simionescu 2015). One of the most critical factors, which affect the profitability of a company, is CSR. It helps the company be more profitable by building up reputational capital. This way, the company can obtain more favourable terms of trade in negotiations with stakeholders, customer satisfaction, and retention. It also allows companies to access new investment and financing opportunities or cost reduction by diminishing risks and positively influencing employee productivity and retention.

In this context, this article determines whether CSR has a positive or negative impact on FP of companies unfolding their activities in the energy and oil sector for 11 companies listed on Bucharest Stock Exchange (BSE) for the years 2011-2018. We go through a literature review regarding CSR and its importance at company levels, linking CSR and FP. The second part details the research's methodological approach by describing the database and the regression variables. Finally, we will present the results by concluding upon the interests for future research.

1.   Literature review

Corporate social responsibility

Despite being present for more decades in the academic literature, the concept of corporate social responsibility remains ambiguous and controversial because it is, largely, synonymous with success (Miron and Petrache, 2012). This concept provided a coherent framework for business and society by introducing new conceptual progress such as CSR, ethical behaviour, and corporate environmental concerns. Subsequently, the concept of CSR received substantial theoretical and empirical attention. Many interpretations of CSR have been made in the literature, but it is evident that companies

and society, in general, should benefit from the implementation of this concept. Bowen (1953) defined CSR as a set of mandatory rules that the managers and business owners must comply with when implementing policies when making decisions or developing strategic actions consistent with the expectations and values that permeate society. His CSR perspective reflects the awareness that companies can no longer ignore the significant impact they have on citizens and communities.

According to Wood and Jones (1995), social issues, environmental pressure, and stakeholder concerns will positively affect decision-making and corporate behavior in the future. Portney (2008) consider that the main reasons for which companies engage in CSR are the following:

- To attract customers
- To encourage employee loyalty and goodwill
- To attract investors
- To promote the goodwill of the community
- To improve the relationship with regulators
- To improve result

Nevertheless, national competitiveness makes CSR one of the powerful strategies because of the significant advantages that affect its image and reputation. In most developing countries, CSR's concept is becoming preeminent in the commercial approach of companies. Clarifying the concept of CSR is beneficial for a better understanding of the relationships between companies and the main stakeholders, while transformative CSR contributes to a greater awareness of companies' role in the development of society.

Researchers have widely debated the role of CSR in creating a healthy society. CSR categories presented by Carroll (1979), which include economic, legal, ethical, and discretionary responsibilities, impact understanding the nature and type of obligations the companies have towards society. He emphasizes that companies' fundamental CSR in this context is their economic responsibility to manufacture goods, provide services that society desires, and sell them for profit by complying with legal requirements.

A company must have a practical ethics program to ensure that all employees understand its value and comply with the policies and the code of conduct. If culture encourages unethical conduct, then misconduct is likely to occur even if it has ethical guidelines (Ferrell et al., 2009). Managers are required to take actions that protect and improve both the wellbeing of society as a whole and the organization's interests. Therefore, ethics and compliance with regulations are the foundation of CSR while achieving the main goal and making a profit, the goal for which the company survives. The challenge of adopting CSR in the company strategy is to take on the most acceptable measures and actions even if these are not consistent with its strategy.

It is always necessary to balance the competing demands of the stakeholders. CSR does not necessarily require trade-offs. CSR is a set of organizational activities that are good for society and companies. CSR is nothing more than a profitable business. Concepts such as "shared value" and "win-win" suggest that companies can create value both for business and for society (Porter and Kramer, 2006). Sustainability and CSR must be part of the culture, values, and ethics of the company.

However, the challenge is implementing CSR policies capable of inspiring credibility with customers, mainly because the social and environmental practices used occur sporadically, having a short-term impact based more on individual effort (Mitchell et al., 1997). On the other hand, due to the lack of research centers and professional advice on CSR, it is becoming an assimilated phenomenon due to the general trend, borrowed from developed countries, and not due to a clear awareness of its central role in the development and continuity of each society (Porter and Kramer 2011). In recent years, CSR has been represented in Romania through initiatives consolidated by companies such as new corporate foundations, new corporate programs, social campaigns, and donation programs.

Friedman's theory (1970) and Freeman's (1984) oppose challenges in terms of CSR. Balancing the interests of different categories of stakeholders is the conceptual principle from which modern CSR logic evolves. The point of view of Freeman et al. (2010) opens up avenues for more integrated approaches to CSR, which they conceptualized as being "the integration of social, ethical and environmental concerns in the management criteria of the business strategy." Integrated CSR is therefore pursued along with the main business goals as a redefinition of priorities and responsibilities. In this regard, the stakeholder theory (Freeman, 1984) emerges as a fundamental theoretical framework for adding value to CSR theory and its practical applications; it is also a pillar for explaining the integration at several levels within the organization. Some stakeholder theorists support profitability analysis from an instrumentalist point of view - namely that managing the relationships between the company stakeholders is good for the bottom line with added value for the company (Margolis and Walsh, 2003).

CSR serves as a mediator in the relationship between shareholders, managers, and other stakeholders. It actively contributes to the creation of synergies, which lead to an increased value of the company (Jensen, 2001); it is mandatory to take into consideration the expectations of stakeholders because this approach will avoid losing sight of the groups whose influence has the most significant impact on the results of the company, but without neglecting the costs involved. There are countless positivist CSR approaches - in search of cause and effect relationships, which often serve as integration into the company's economic theory (Margolis and Walsh, 2003).

A company's rational reasons for investing in CSR activities are building a strong competitive advantage, enhancing its reputation and legitimacy, and creating synergies. (Husted and Salazar, 2006). While stakeholder scholars recognize a mix of financial and moral consequences regarding CSR, they focus on creating value and doing business through the relationships with the stakeholders requiring trade-offs in practitioners' management issues.

Financial performance
Financial performance is a subjective measure of how well a company can use its primary business model assets and generate revenues. It is also a general measure of a company's overall financial health over a given period and can compare similar companies across the same industry or compare industries or sectors in aggregate. The company's primary goal is to maximize the market value of the wealth of capital investors. The best financial decisions lead to an increase in the company capital's

market value (Stancu et al., 2015). These authors considered that the evaluation of the company's performance is a complex process that requires several financial ratios based on the concept of value creation:

- Creating intrinsic value (EVA) and market value of economic assets (MVA)
- Return on invested capital (ROIC), return on equity (ROE), and total shareholder return (TSR)

Price multiples: Price-earnings ratio (P/E), Price-to-Book (P/B), Price-to-Sales (P/S), Price-to-Cash-Flow (P/CF)

Stancu et al. (2013) state that "modern performance ratios such as Economic Value Added (EVA), Market Value Added (MVA), Net Present Value (NPV), etc., involve taking into account the opportunity cost of the company capital, which is currently a great difficulty, given the stage of macroeconomic and sectoral analyses in Romania."

Performance evaluation is part of the company management process. Many approaches and analyses have been developed, and different types of profitability ratios have become very important for evaluating companies' performance. The interest in performance means analyzing the return on capital returned by shareholders and by borrowers. This analysis can be carried out by matching the data of the income statement and the balance sheet. This analysis's primary goal is to help the company manage its performance by starting from an evaluation system to analyze and improve its efficiency, which affects the decision-making process. Business profitability is a critical issue for economics and management. Nevertheless, given the polysemy of the performance concept, company management's evaluation involves mainly ratios related to financial performance, which may take the form of profits and cash flows or other financial ratios derived from them.

We observed from the literature that the measurement of financial performance depends on the chosen factors. These factors can be attributed to specific different categories: measures related to market value, accounting measures. Several studies used accounting measures for quantifying financial performance (Vintilă et al., 2014). Recent studies use market measures (Simionescu and Gherghina 2014). The analysis of the company's performance is generally carried out by analyzing the financial statements. One of the analytical techniques that can be used to assess company performance is analyzing financial ratios. In this study, the financial performance of the company, considered as being a dependent variable, will be established by accounting measures as Retrun on Assets (ROA), Return on Equity (ROE), Return on Invested Capital (ROIC), Earning Per Share (EPS), liquidity measures (current ratio), and market-based measures as Price-To-Book Value (PBV).

Relationship between social responsibility and financial performance
Researchers' opinions on why companies adopt and implement CSR practices are different. The relationship between CSR and FP illustrates the disagreement. Furthermore, the debate in the literature demonstrating the heterogeneity of results.

Adeneye and Ahmed (2015) analyzed the impact of CSR on performance for British companies. CSR was measured using the CSR index. The company performance was measured using the market value as compared to the market-to-book value, the company size (size), and the return on capital employed (ROCE). The results showed a

significant positive relationship between CSR, market-to-book value, and return on capital employed. They didn't find a significant relationship between CSR and size.

In their analysis about the relationship exists between CSR performance and PF using 191 sample firms listed on the Korea Exchange, Cho et al. (2019) found that CSR performance has a partial positive correlation with profitability and firm value. Analysis of the correlation between CSR performance and PF indicators revealed a positive relationship between the growth rate of total assets and corporate soundness and social contribution.

Pintekova and Kukacka (2019) analyze the relationship between CSR and the stock market performance in the post-global financial crisis period through ESG Combined Score. The results of the fixed effects regression show a positive and statistically, as well as economically, significant impact of the strategic activities on the corporate stock market performance of companies.

According to Waddock and Graves (1997), companies benefit from CSR activities because these CSR activities' advantages outweigh the associated costs. Using both accounting and capital market measures of company performance. Freeman (1984) states that in order for the business to run smoothly, managers should be interested in the stakeholders (customers, investors, employees, shareholders, communities, etc.). On the other hand, Friedman (1970) indicates that CSR leads to additional costs that could exceed its profit, thus affecting shareholders' wealth.

Given the difficulty of CSR integration in the environment, it's reasonable to assume that achievement would necessitate a significant financial investment. Furthermore, there is a public belief that the company's long-term sustainability would not be successful (Bae et al., 2021). However, based on research provided in recent years, it is clear that CSR implementation results in extremely positive financial outcomes for the organization and, as a result, for its employees (Awaysheh et al., 2020; Galdeano et al., 2019). However, it's significant to mention that such an economic benefit can only be realized when non-economic CSR variables are actively promoted.

Our research question supports the heterogeneity of prior studies: is there any positive relationship between CSR performance and company FP? In the following section, a study will test the impact of CSR on the FP of the companies in Romania's oil and energy industry.

2. Research methodology

Hypotheses

The purpose of this article is to analyze empirically whether engaging in social responsibility has a positive or negative impact on the financial performance of the Romanian companies listed on BSE in the energy industry.

Starting from the literature mentioned above, which refers to the relationship between CSR and the FP variables, we intend to test, in this article, the following hypotheses:

- H0: CSR had a positive impact on the FP
- H1: CSR had a negative impact on the FP
- H2: There is a positive relationship between company size and FP

Database

The sample analyzed in this study includes quarterly data from 11 Romanian companies listed on Bucharest Stock Exchange during 2011-2018 in the oil and energy industry. The CSR of these companies is taken from their annual reports, from their websites containing corporate governance reports, CSR reports, rules of ethics and conduct, and implementation of the international ISO standards. Financial information is taken from Thomson Reuters Eikon website and from BSE website, which contains du site de la BVB, including balance sheets and income statements for 20011-2018. Besides, the companies belonging to this sector with missing information were not taken into account.

Description of variables
Considering the FP evaluation, some researchers used accounting measures (Waddock and Graves, 1997; Ebaid, 2009). Although Vance (1975) used only market-based measures, Simionescu and Gherghina (2014) considered both accounting measures and market-based measures. In this article, we took into consideration both accounting-based performance measures and market-based performance.

Table no. 1. Description of variables

Type	Variables	Symbol	Calculation method
Dependent variables	Return on equity	ROE	Net profit/Equity
	Return on assets	ROA	Net profit/Total assets
	Return on invested capital	ROIC	EBIT(1-TC)/CI
	Earnings per share	EPS	Net profit/Number of shares
	Price-to-Book Value	PBV	Market capitalization/Net book value
	Overall liquidity ratio	RLC	Current assets/Short-term debts
Independent variables	Social responsibility	CSR	Dummy variable
	Turnover/Total number of employees	CA/Ang	Turnover/Total number of employees
Control variables	Company size	TA	Total assets
		NrTotANg	Total number of employees
	Years of listing on BSE	ANI_LIST	Number of years of listing on BSE
	Degree of indebtedness	DTL/CP	Long-term debt/Equity
		DT/CP	Total debt/Equity
		TA/CP	Total assets/Equity

Source: Authors' own research.

While the evaluation of performance based on accounting measures reflects a company's past performance, market-based measures reflect the current value of the future income streams (Amelon and Cardebat, 2010). They vary from day to day and incorporate changes in accounting profit, as well as external factors.

Return on assets (ROA) means profit generated by total assets and gives us an idea about the management's efficiency in using its assets to profit. Return on equity (ROE) highlights its efficiency by using the shareholders' funds to make a profit. Return on capital invested (ROIC) shows the profit that a company makes based on its capital. The better the company, the more profit they make as a percentage of the invested capital. Moreover, earnings per share (EPS) establish how many monetary units of net income were earned for each common share. PBV or Price-To-Book Value is the ratio between the market value of equity (market capitalization) and the book value of equity. If this ratio is greater than 1, the return on equity is greater than the return desired by the shareholders. The liquidity ratio is also an essential factor regarding the company's value. It shows the company's ability to meet its financial obligations or to pay short-term debts. In other words, this ratio shows the company's ability to pay its short-term debts that are due soon. To meet its short-term obligations as they fall due, the company must have cash or other current assets that can be immediately converted into cash. The company size must also be taken into account by investors regarding the company value. CSR practices differ from one company to another. Control variables regarding the characteristics of the company have been added in order to avoid the effect of company heterogeneity, such as:

- The company size is an explanatory variable of social responsibility diversity and is measured by the total assets (Safaeianpoor and Shoorvarzy, 2017). In this article, the company size will be explained by referring to total assets and the total number of employees.

- The degree of indebtedness indicates the company's total debts (total current debt, long-term debt) compared to its assets (total current assets, fixed assets, or other assets such as goodwill). The lower the debt ratio, the lower the source of debt financing. In addition, the other way around, the greater the debt ratio, the greater the source of debt financing. The stakeholders perceived the degree of indebtedness as a risk measure and they believe that a better-managed company is less exposed to risks and vice versa. (Simionescu and Gherghina, 2014). The variables regarding the degree of indebtedness are used separately in all regression models for a better understanding and interpretation of the estimation results and for comparing the estimation results when using different measures related to the degree of indebtedness and the company size.

- The number of years of listing on BSE indicates the company's age as being the difference between year t and the year of listing on BSE.

A dummy variable estimated CSR according to CSR practices for each company during 2011-2018. Data on CSR of the selected companies are taken from their annual reports, from their official webpages, which contain corporate governance reports, CSR reports, rules of ethics and conduct, and implementation of the international ISO standards. If a company applies CSR practices, it obtains value 1. If not, it obtains a value of 0.

According to Dumitrescu and Simionescu (2015), employees who feel valued by the organization enhance their performance, thus increasing the company's financial performance. This research will use variable CA/ANG introduced by Simionescu (2014) regarding CSR. It reveals whether CSR activities influence the FP.

Methodological approach

The relationship between CSR and the FP of the selected companies will be studied from an empirical point of view by instrumentation of the panel data regression model as follows:

$$Y_{it} = \alpha_{0i} + \beta_1 \times x_{it} + u_{it} \quad i = 1, \ldots, N; t = 1, \ldots, T \tag{1}$$

Where:
- i refers to the selected companies, while t means the years of observations, namely 2008-2011
- Index i refers to the size of the cross section
- t refers to the time series size
- α is a scalar
- β is $K \times 1$
- X_{it} is observation it on K explanatory variables

Moreover, most of the panel data applications use a one-way error component model for disturbances. Financial performance quantified through accounting measures such as economic profitability (ROA), financial profitability (ROE), return on invested capital (ROIC), earnings per share (EPS), liquidity measure (RLC), and market-based measures such as price-to-book value (PBV), will be considered dependent variables in separate regression equations. CSR and CA/ANG will be considered independent variables, while the company size, degree of indebtedness, and the years of listing of BSE will be considered explanatory variables.

3. Empirical results

The purpose of this article is to analyze empirically whether engaging in social responsibility has a positive or negative impact on the financial performance of the Romanian companies listed on BSE in the energy industry.

Table no. 2. Descriptive statistics

	ROA	ROE	ROIC	EPS	PBV	RLC	TA_CP	DT_CP	DTL_CP	CA_ANG	TA	NRTOT ANG	ANI_LIST	CSR
Mean	0.0355	-0.2312	-0.0190	1062727	0.6313	4076023	1602841	0.1834	0.0516	3364835	1614762	3458636	8500000	0.5909
Median	0.03215	0.0515	0.041	0.035	0.64	2805000	1320000	0.075	0.013	7852000	996385	1738000	8500000	1000000
Maximum	0.1647	0.193	0.182	1132000	1430000	6601000	6930000	2580000	0.29	2987250	9623465	22912	2000000	1000000
Minimum	-0.1882	-2119800	-3021000	-0.8	0.05	0.33	1080000	0	0	3240000	20492	2890000	0	0
Std.Dev.	0.068574	2293174	0.408129	2591661	0.407609	7133592	0.975206	0.367417	0.074583	7140742	2515632	4870017	5807249	0.494484
Skewness	-0.7551	-8865319	-6271307	2879132	0.239027	7566707	3501260	4188864	1543136	2846522	2293211	2482433	0.1313	-0.3698
Kurtosis	4135518	8129485	4294174	1009642	1908396	6609799	1587138	2397944	4359615	9522925	7236982	8656103	1971714	1136752
Jarque-Bera	1309118	23629.68	6426418	3062283	5207159	1543805	7872613	1871185	4170332	2748507	1429534	2076851	4130239	1473524

Probability	0.0014	0	0	0	0.0740	0	0	0	0	0	0	0	0.1268	0.000631
Sum	3130900	-2035000	-1676000	9352000	5556000	3586900	1410500	1614000	4544000	2961055	142000000	304360	7480000	5200000
Sum Sq. Dev.	0.4091	4575023	1449153	5843535	1445464	4427268	8273939	1174458	0.483948	44361469	5.51E+14	206000000	2934000	2127273
Observations	88	88	88	88	88	88	88	88	88	88	88	88	88	88

Source: Authors' own calculation..

Skewness is a measure of asymmetry of the distribution around the mean. We observe that ROA, ROE, ROIC and CSR have skewness < 0, which indicates that distribution is skewed to the left. The other variables have skewness > 0, therefore their distribution is skewed to the right.

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Table no. 3. Correlation matrix

	ROA	ROE	ROIC	EPS	PBV	RLC	TA_CP	DT_CP	DTL_CP	CA_ANG	TA	NRTOTANG	ANI_LIST	CSR
ROA	1	0.2618	0.482	0.4037	0.3859	0.0423	-0.2564	-0.3001	-0.1	-0.2766	0.2239	0.3685	-0.0217	0.239
ROE	0.2618	1	0.8835	0.0664	-0.2046	0.0628	-0.5832	-0.6991	0.0869	-0.4208	0.0119	0.0766	0.0132	0.1571
ROIC	0.482	0.8835	1	0.1328	-0.182	0.0809	-0.4938	-0.5942	0.0934	-0.5211	0.0487	0.1415	0.0206	0.2178
EPS	0.4037	0.0664	0.1328	1	0.3084	-0.009	-0.1153	-0.1623	-0.1628	-0.1411	-0.0916	0.0735	-0.1044	0.2909
PBV	0.3859	-0.2046	-0.182	0.3084	1	-0.09	0.3824	0.3128	-0.1376	0.4863	0.2376	0.2876	0.1068	0.138
RLC	0.0423	0.0628	0.0809	-0.009	-0.09	1	-0.1669	-0.1876	-0.1914	-0.1857	-0.171	-0.1387	-0.142	-0.1245
TA_CP	-0.2564	-0.5832	-0.4938	-0.1153	0.3824	-0.1669	1	0.9587	0.2498	0.8517	0.0742	-0.066	0.0441	-0.1678
DT_CP	-0.3001	-0.6991	-0.5942	-0.1623	0.3128	-0.1876	0.9587	1	0.3079	0.7825	0.0033	-0.1494	-0.0227	-0.2219
DTL_CP	-0.1	0.0869	0.0934	-0.1628	-0.1376	-0.1914	0.2498	0.3079	1	0.179	0.1311	-0.0108	-0.124	-0.0957
CA/ANG	-0.2766	-0.4208	-0.5211	-0.1411	0.4863	-0.1857	0.8517	0.7825	0.179	1	0.0988	-0.07	0.099	-0.1197
TA	0.2239	0.0119	0.0487	-0.0916	0.2376	-0.171	0.0742	0.0033	0.1311	0.0988	1	0.9261	0.1108	0.2647
NRTOTANG	0.3685	0.0766	0.1415	0.0735	0.2876	-0.1387	-0.066	-0.1494	-0.0108	-0.07	0.9261	1	0.0797	0.328
ANI_LIST	-0.0217	0.0132	0.0206	-0.1044	0.1068	-0.142	0.0441	-0.0227	-0.124	0.099	0.1108	0.0797	1	0.2362
CSR	0.239	0.1571	0.2178	0.2909	0.138	-0.1245	-0.1678	-0.2219	-0.0957	-0.1197	0.2647	0.328	0.2362	1

Source: Authors' own calculation.

To analyze the relationship between variables, we used the Pearson correlation matrix in table 3 for the dependent and independent variables. According to the results obtained, the variable TA/CP is strongly correlated with DT/CP (correlation=0.9), but this does not influence our regression because indebtedness variables will be estimated separately for each model. Moreover, variables TA and NrTotAng show a strong correlation of 0.9, but this does not influence our regression because the size values will be estimated separately for each model. However, we also notice that TA/CP and CA/ANG are strongly correlated (correlation=0.8). Therefore, variable TA/CP, which represents the degree of indebtedness, will be excluded in our regression.

We did a multicollinearity test concerning the undesirable situations mentioned previously when the variables are correlated with each other. Multicollinearity leads to

an increase in variance and standard errors of the ordinary least squares estimates. Significant discrepancies highlight the fact that estimates are inaccurate and unreliable. Moreover, high variance and standard errors lead to a low t-statistic. Therefore, multicollinearity increases the probability to accept hypothesis zero when it is false, thus concluding that CSR does not influence company performance when in reality, and it does. Thus, to verify the severity of multicollinearity, we will check the reliability factor of variance.

Table no. 4. Regression results for ROA model

Independent variables	(1)			(2)		
	Coef	t-statistic	Prob	Coef	t-statistic	Prob
CSR	0.016130	1.083499	0.2818	0.020604	1.353567	0.1796
CA/ANG	-2.16E-05	-2.221908	0.0290	-1.53E-05	-0.962429	0.3387
ANI_LIST	-0.000694	-0.573569	0.5678	-0.000795	-0.640784	0.5234
NRTOTANG	4.49E-06	3.072678	0.0029	-	-	-
TA	-	-	-	5.68E-09	1.974570	0.0517
DTL_CP	-0.048224	-0.520874	0.6039	-	-	-
DT_CP	-	-	-	-0.026944	-0.867023	0.3885
C	0.026190	1.749024	0.0840	0.031098	2.113192	0.0376
R-squared	0.214055			0.171119		
F-statistic	4.466593			3.385711		
Prob(F-statistic)	0.001195			0.007869		
Durbin-Watson	0.689965			0.684005		
Hausman	0.6221			0.1527		
Jarque-Bera	0.000002			0.000003		
Breusch-Pagan	0.0000			0.0000		

Source: Authors' own calculation.

Table 4 represents the model where ROA is used as the dependent variable. We observe that CSR does not influence ROA in the two models. That means if the company invests in CSR practices, there is no visible impact on the company's economic profitability.

Variable CA/ANG negatively influences ROA only in the first model. ANI_LIST represents the cost that companies should support CSR activities, becoming more visible on the market to attract well-trained employees, customers, and investors. In the long run, all this leads to an increase in PF, thus achieving the company's competitive advantage. However, ANI_LIST is not significant for the two models. Regarding the company size variables, NrTotAng is significant, and it positively influences ROA in the first model, but TA (total assets) is not significant in the second model. Indebtedness does not have any impact on ROA in the two models. F-statistic and Prob (F-statistic) test the overall significance of the regression model. More precisely, they test hypothesis zero according to which all regression coefficients are equal to zero. Prob (F) value means the probability that hypothesis zero for the complete model is validated. Therefore, for both ROA models, the independent variables can influence the dependent variable ROA (Prob F-statistic <5%), and, therefore, the 2 estimated models of ROA are statistically validated. Regarding R2, the independent variables can influence the dependent variable ROA's total variation by about 21.4% and 17.1 %, respectively, for the two models. Nevertheless, 78.6% and 82.9% are explained by external factors or variables not included in the model. For this reason, we carry out the derivation of the residuals. Hausman's test also makes it possible to test the difference between the fixed effects model, considered convergent according to hypothesis zero, and the alternative hypothesis. According to the alternative hypothesis, the random-effects model was considered convergent and efficient according to hypothesis zero but not convergent. DW statistics establish whether there is autocorrelation in the residuals of a time series regression. Concerning Hausman's test, the two ROA models are random-effects models. According to Breusch-Pagan, residuals have heteroscedasticity. Jarque-Bera test indicates whether residuals are normally distributed. For prob <5%, residuals are normally distributed.

Table no. 5. Regression results for ROE model

Independent variables	(1)			(2)		
	Coef	t-statistic	Prob	Coef	t-statistic	Prob
CSR	0.490017	0.988996	0.3256	-0.017865	-0.046694	0.9629
CA/ANG	-0.001432	-4.421488	0.0000	0.001097	2.737804	0.0076
ANI_LIST	0.021508	0.533829	0.5949	-0.015899	-0.509581	0.6117
NRTOTANG	3.92E-06	0.080673	0.9359	-	-	-
TA	-	-	-	-1.21E-08	-0.166998	0.8678
DTL_CP	3.92E-06	1.832171	0.0706	-	-	-
DT_CP	-	-	-	-6.042072	-7.735407	0.0000
C	-0.526918	-1.057300	0.2935	0.673051	1.819606	0.0725

R-squared	0.221525	0.531741
F-statistic	4.666830	18.62336
Prob(F-statistic)	0.000846	0.000000
Durbin-Watson	0.00000	0.824173
Hausman	0.4535	0.0012
Jarque-Bera	0.00000	0.00000
Breusch-Pagan	0.00000	0.00000

Source: Authors' own calculation.

Table 5 represents the results of the regression equations by using ROE as the dependent variable. CSR does not have an impact on ROE in the two models. So if the company investes in CSR practices, the financial profitability will not be affected. CSR practices influence positively employees' performance at work. This is revealed by the positive influence of CA/ANG on ROE in the second model. ANI_LIST represents the cost that companies should support CSR activities, wanting to become more visible on the market to attract well-trained employees, customers, and investors. In the long run, all this leads to an increase in PF, thus achieving the company's competitive advantage. But ANI_LIST is not significant for the two models. Regarding the indebtedness variables, DTL_CP does not influence ROE, but DT_CP had a strong negative influence on ROE. In the two models, the independent variables can influence ROE and, therefore, the two estimated models are statistically significant. The two ROE models are statistically significant. Regarding R2, the independent variables can influence the total variation of ROE by about 22.1% and 53.1 %, respectively, for the two models. Nevertheless, 77.9% and 46.9% are explained by external factors or variables not included in the model. The R2 difference in the two models is due to DT_CP influence on ROE.

Table no. 6. Regression results for ROIC model

Independent variables	(1)			(2)		
	Coef	**t-statistic**	**Prob**	**Coef**	**t-statistic**	**Prob**
CSR	0.115512	1.426329	0.1576	0.072091	0.914397	0.3632
CA/ANG	-0.000311	-5.884357	0.0000	-9.62E-05	-1.165473	0.2472
ANI_LIST	0.004465	0.677969	0.4997	0.000123	0.019084	0.9848
NRTOTANG	4.58E-06	0.576794	0.5657	-	-	-
TA	-	-	-	7.05E-09	0.473602	0.6370
DTL_CP	1.164544	2.312214	0.0233	-	-	-
DT_CP	-	-	-	-0.492319	-3.058708	0.0030

C	-0.096435	-1.183856	0.2399	0.048591	0.637506	0.5256
R-squared			0.343396			0.372265
F-statistic			8.577015			9.725676
Prob(F-statistic)			0.000001			0.000000
Durbin-Watson			1.112008			0.590653
Hausman			0.0826			0.2447
Jarque-Bera			0.00000			0.00000
Breusch-Pagan			0.00000			0.00000

Source: Authors' own calculation.

Table 6 represents the ROIC model results. We found that the investment in CSR practices does not influence ROIC in the two models. However, CA/ANG negatively influences ROIC in the two models. ANI_LIST is not significant in the two models. Regarding the degree of indebtedness, DTL_CP positively influences ROIC, while DT_CP has a negative impact on ROIC. The company size does not influence ROIC. The two ROIC models are statistically validated. Regarding R2, the independent variables can influence the total variation of ROIC by about 34.3 % and 37.2 %, respectively, for the two models. Nevertheless, 65.7% and 62.8% are explained by external factors or variables, which are not included in the model.

Table no. 7. Regression results for EPS model

Independent variables	(1)			(2)		
	Coef	t-statistic	Prob	Coef	t-statistic	Prob
CSR	1.690457	2.879096	0.0051	1.868024	3.208461	0.0019
CA/ANG	-0.000215	-0.559575	0.5773	2.79E-05	0.045796	0.9636
ANI_LIST	-0.085211	-1.784728	0.0780	-0.077180	-1.625516	0.1079
NRTOTANG	-1.21E-05	-0.210832	0.8335	-	-	-
TA	-	-	-	-1.72E-07	-1.566146	0.1212
DTL_CP	-5.047508	-1.382317	0.1706	-	-	-
DT_CP	-	-	-	-0.653168	-0.549509	0.5841
C	1.163013	1.969286	0.0523	1.003518	1.782818	0.0783
R-squared			0.144097			0.151017
F-statistic			2.761044			2.917229

Prob(F-statistic)	0.023494		0.017882
Durbin-Watson	0.109403		0.121672
Hausman	0.0018		0.0003
Jarque-Bera	0.00000		0.00000
Breusch-Pagan	0.00000		0.00000

Source: Authors' own calculation.

Table 7 shows the results for the model where EPS is an independent variable. We found that the investment in CSR is significant and positively influences EPS. This means that the most the company invest in CSR practices, so their financial performance represented by EPS will increase on the long-term. This result was demonstrated by Simionescu and Gherghina (2014). However, CA/ANG is not significant and does not influence EPS in the two models. ANI_LIST is not significant. As for the indebtedness variable, it does not influence EPS. Company size does not influence EPS. The EPS model is statistically validated. According to R2, the independent variables can influence the total variation of the ROIC variable by about 14.4% and 15.1%, respectively, for the two models. Nevertheless, 85.6% and 84.9 % are explained by external factors.

Table no. 8. Regression results for PBV model

Independent variables	(1)			(2)		
	Coef	**t-statistic**	**Prob**	**Coef**	**t-statistic**	**Prob**
CSR	t	0.973308	0.3333	0.120695	1.450462	0.1507
CA/ANG	0.000320	6.336382	0.0000	0.000324	3.717607	0.0004
ANI_LIST	-0.001562	-0.248328	0.8045	-0.000145	-0.021369	0.9830
NRTOTANG	2.48E-05	3.267126	0.0016	-	-	-
TA	-	-	-	2.32E-08	1.477221	0.1434
DTL_CP	-1.250590	-2.600228	0.0110	-	-	-
DT_CP	-	-	-	-0.110090	-0.648037	0.5188
C	0.471223	6.057825	0.0000	0.434970	5.406833	0.0000
R-squared			0.399709			0.298926
F-statistic			10.92010			6.992675
Prob(F-statistic)			0.000000			0.000017
Durbin-Watson			0.252590			0.196807
Hausman			0.2033			0.0126
Jarque-Bera			0.105089			0.000000

Breusch-Pagan					0.000000
		0.000000			

Source: Authors' own calculation.

Table 8 represents the model where PBV is used as the dependent variable. CSR does not influence PBV. This means that the investment in CSR practices won't be visible on PBV level. However, CA/ANG negatively influences PBV only in the first model. ANI_LIST is not significant in the two models. Regarding the indebtedness variables, DTL_CP negatively influences PBV. La DT_CP is not significant. NRTOTANG positively influences PBV, while TA does not influence PBV. The two models and statistically validated. Regarding R2, the independent variables can influence the total variation of ROIC by about 39.9 % and 29.8 %, respectively, for the two models. Nevertheless, 60.1% and 70.2% are explained by external factors or variables not included in the model.

Table no. 9. Regression results for RLC model

Independent variables	(1)			(2)		
	Coef	t-statistic	Prob	Coef	t-statistic	Prob
CSR	-1.408059	-0.854323	0.3954	-1.629399	-0.982912	0.3285
CA/ANG	-0.001597	-1.482654	0.1420	-0.000219	-0.126382	0.8997
ANI_LIST	-0.144437	-1.077715	0.2843	-0.127216	-0.941027	0.3495
NRTOTANG	-0.000162	-1.001534	0.3195	-	-	-
TA	-	-	-	-3.60E-07	-1.147887	0.2544
DTL_CP	-17.97214	-1.753394	0.0833	-	-	-
DT_CP	-	-	-	-3.833435	-1.132688	0.2606
C	8.161364	4.923071	0.0000	7.477640	4.665723	0.0000
R-squared			0.109843			0.091566
F-statistic			2.023724			1.653046
Prob(F-statistic)			0.083789			0.155323
Durbin-Watson			1.138893			1.132483
Hausman			0.7549			0.8751
Jarque-Bera			0.00000			0.000000

Breusch-Pagan			0.000000
		0.000000	

Source: Authors' own calculation.

Table 9 represents the model where RLC was the dependent variable. This means if the company invest in CSR practices, there is no impact on RLC. CSR is not statistically significant and does not influence RLC. CA/ANG does not affect RLC. The number ANI_LIST is not statistically significant. The indebtedness variables do not influence liquidity. The company size does not influence liquidity in the two models. The two models where RLC is a dependent variable are not statistically validated. The independent variables significantly influence the total variation of RLC by 10.9 % and 9.1 %, respectively, for the two models.

Conclusions
This study aims to assess the impact of corporate social responsibility (CSR) on the financial performance (FP) of the companies in the oil and energy industry on the Romanian market to propose a practical framework for measuring companies' performance.
By applying a quantitative approach and a regression analysis based on quarterly data of 11 Romanian companies listed on the Bucharest Stock Exchange during 2011-2018, the results showed that CSR positively influences EPS but has no influence on ROA, ROE, ROIC, and PBV. Regarding CSR represented by the CA/ANG report, we noticed a negative influence on ROA in the first model, a negative influence on ROE in the first model, and a positive influence in the second model, a negative influence in the two ROIC models, and a positive influence on PBV. As for company size, the total number of employees positively influences ROA and PBV. For indebtedness, DT_CP negatively influences ROE and ROIC, while DTL_CP positively influences ROIC and negatively influences PBV. The two models where RLC is used as a dependent variable are not statistically validated.
The main challenge in this study is the database's limitation, which contains a small number of statistical observations included in the sample. As future research orientations, we believe that a larger sample and a more extended analysis duration could provide more reliable results. We also suggest choosing other indicators for performance measurement, such as MVA, known as market value added, as it is an indication of the company's capacity to increase shareholder value over time, and EVA, known as economic value added, as it seeks to capture the company's real economic profit.

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