

The impact of ESG ratings on the corporate financial performance of Russian companies

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Abstract. This article examines the impact of ESG ratings on the corporate financial performance of Russian companies, in particular on return on assets (ROA). The results of the ESG rating components for components E, S, G for the period 2023 for companies included in the rating list with ESG ratings of Russian companies from the RAEX rating agency were selected as the object of the study. The purpose of the article is an empirical study of the influence of ESG rating components on the performance of Russian public companies listed on the stock exchange. To achieve this goal, regression analysis with the least squares method (OLS) was used. The results of the analysis showed that the correlation between the ROA indicator and the E, S, G indicators has minimal values. The results of the indicators calculated by regression analysis indicate a weak positive relationship between the independent variables (E, S, G) and the dependent variable (ROA). Only 6.17% of the ROA variability can be explained by ESG factors. In conclusion, the study highlights the need to further explore other factors affecting financial sustainability, and recommends more comprehensive approaches to analyzing the relationship between ESG and financial performance.

1 Introduction

Global climate change, which has become particularly noticeable in the last decade, has actualized the development of sustainable development initiatives in all regions and countries. Western countries are at the forefront of lawmaking within the framework of the ESG agenda, however, there is also interest in this topic in developing countries, due to the large number of published scientific studies. The universal interest in this issue has also had an impact on companies of various sizes. Interest in corporate social responsibility (CSR) has grown significantly. ESG ratings are used to assess CSR, which are based on an analysis of the environmental, social and managerial components of companies' activities. ESG commitment is necessary primarily for large companies that are embedded in the processes

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of globalization. This is due to the desire to attract as many investments as possible through investors' investments in company securities.

With the growing number of ESG-related studies, an increasing number of researchers are formulating new terms that are associated with ESG factors. Researchers Sandberg [1], Walker consider the term sustainable financing and sustainable investment. Dunfee Waddock Social Investments [2]. Sustainable development practices Alshehhi et al. [3], Amber and Othman [4]. The issues of the influence of ESG factors on the financial performance of organizations have been considered in a large number of studies. In their study, Ester Clementino and Richard Perkins [5] studied the reaction of the business community to ESG ratings. Four typologies of corporate reactions have been developed, showing compliance and resistance to ratings. The results cast doubt on the claims about the positive impact of ESG ratings on the sustainable development of companies.

ESG ratings are "assessments of companies based on a comparative assessment of their quality, standards or indicators on environmental, social or managerial issues" [5]. The growing demand of investors for ESG indicators has been noted for ten years, including the growing demand for awareness of the financial significance of ESG factors [6]. Non-financial reporting is most often used as information for evaluation by rating agencies [7].

In their research, E.V. Ryabova and V.V. Rassokhin [8] obtained results that indicate an increased interest on the part of developing countries in the sustainable development agenda. After examining the impact of the ESG rating on strategic efficiency, the negative impact on companies from Turkey and Mexico was reflected. The results were not significant for the rest of the countries. There was a significant negative impact of the ESG rating on operational efficiency for Russian and Chinese companies, and a positive one for Turkish companies. The resource theory was also confirmed, which confirms the interest of investors in buying shares of a company that adhere to the principles of socially responsible behavior.

In their work, M.V. Chernyshova and I.M. Shogenova [9] consider approaches to ESG investment as investment strategies based on the analysis of the dynamics of the priority of ESG components. The study did not reveal a direct relationship between the growth of the company's capitalization and the quality of the company's performance of ESG factors. The study confirmed the trend of increasing popularity of the company's ESG rating, which is explained by the interest of issuers in the possibility of financing mechanisms for their activities within the framework of the ESG agenda. Business transformation within the framework of the ESG agenda should be based on verified government policy, as well as market signals from investors in their interest in observing the principles of the agenda. Nevertheless, Ghost [10], having studied Australian construction companies, did not find a strong positive correlation between ESG indicators and financial indicators.

As can be seen from the literature review, the interest in research in this field is of a global nature. It is worth noting that the data obtained are fragmented. This is primarily due to the use of various research techniques. At this stage, there are still no generally recognized factors for evaluating ESG indicators. In the same way, arrays of source data are taken for different time intervals and in different countries. As studies show, the issue of ESG assessment has specific features in each country. There is an insufficient amount of this topic in Russia. The previous literature, which comprehensively analyzed the impact of all ESG factors, did not provide convincing evidence of their impact on financial performance in the Russian context. There is a lack of research examining this correlation in emerging economies.

The purpose of this article is an empirical study of the influence of ESG rating components on the performance of Russian public companies listed on the stock exchange. The conducted research analysis allows us to put forward the following research hypothesis:

H1: There is a positive relationship between the indicators E (environmental), S (social), G (governance) and the value of Russian companies.

The results of the ESG rating components for components E, S, G for the period 2023 for companies included in the rating list with ESG ratings of Russian companies from the RAEX rating agency were selected as the object of the study.

2 Materials and methods

For the analysis, data from the ESG RAEX rating and MICEX data on the return on assets (ROA) of 50 Russian companies for 2023 were used. The ESG rating used is carried out by the main analytical unit of RAEX-Analytics LLC, which is part of the RAEX consortium. The Agency is completely independent in its activities in the implementation of official procedures. The methodology used by the agency provides for the continuity of its application within the framework of rating activities. It is worth noting that ESG ratings are not credit ratings, i.e. they are not within the scope of the supervisory activities of the Bank of Russia. To assess the impact of the ESG rating components on the performance of Russian public companies, components E (environmental), S (social), and G (governance) were selected as independent factors. These indicators were converted to numerical values to perform regression analysis.

The financial indicator of the company's activity, characterizing its efficiency, was chosen as a dependent variable. You can make a choice from a number of accounting indicators such as return on assets (ROA), return on investment, return on sales. Within the framework of this study, the author selected the return on assets (ROA) indicator, which is considered to be the most fully characterizing the state of the company. A summary of the variables is shown in table 1.

Table 1. Summary of variables.

Variables	Explanations
Dependent variable	
Return on assets (ROA)	ROA = Net profit / Average asset value × 100 %
Independent variables	
E rating	To assess environmental efficiency, the following indicators were used, calculated per unit of revenue (million rubles) for the corresponding year: - the volume of water resources used; - the volume of waste produced; - the volume of total emissions into the atmosphere.
S rating	The following indicators were used to assess social effectiveness: - social expenses and investments in human capital per 1 employee; - the number of accidents per 1,000 employees of the company.
G rating	The following indicators were used to assess managerial effectiveness: - the share of independent members of the Board of Directors; - the share of the company's shares traded on the open market; - the company's position in the "Transparency of Corporate Reporting" rating, according to Transparency International.

Regression analysis was performed using the least squares (OLS) method. To assess the strength of the relationship between the variables, the correlation coefficient was calculated, and the statistical significance of the independent variables was checked.

3 Results

A model has been formulated for evaluation in the form of linear regression:

ROA_i = \beta_0 + \beta_1 * E_i + \beta_2 * S_i + \beta_3 * G_i + \varepsilon_i (1)

where:
ROA_i – return on assets of the company, %,
E_i - environmental rating of the company,
S_i - social rating of the company,
G_i - management rating of the company,
β_0 - free member,
β_1, β_2, β_3 - regression coefficients that show the effect of the corresponding ENG factors on ROA,
ε_i - an accidental mistake.

Descriptive statistics were carried out before building the model. The following indicators are calculated: mean, median, standard deviation, range of values for ROA and each ESG component. The data is shown in table 2.

Table 2. Descriptive statistics data.

Indicator	Average	Median	Minimum	Maximum	Standard deviation
E (environmental)	105.72	106	101	109	2.49
S (social)	104.86	105	101	109	2.01
G (managerial)	103.62	104	101	107	1.54
ROA (return on assets)	7.36	6.75	-9	29.6	8.25

Based on the results of descriptive statistics, it can be concluded that the average value of the indicator E, S, G are close to each other, which indicates the similarity of companies in these parameters. The results of the ROA indicator have the largest variation, which indicates significant differences in the financial results of companies (min=-9, max=7.36).

A correlation matrix has been constructed for a preliminary analysis of the relationship between the E, S, G and ROA indicators (Table 3).

Table 3. The correlation matrix.

Variable	E	S	G	ROA
E	1.000000	0.835584	0.680475	-0.120251
S	0.835584	1.000000	0.695700	0.018814
G	0.680475	0.695700	1.000000	-0.035778
ROA	-0.120251	0.018814	-0.035778	1.000000

The analysis of the correlation matrix revealed a strong positive correlation of the indicators E, S, G among themselves. A strong positive correlation was noted between the E and S indices (0.836). Moderately positive between E and G (0.68) and S and G (0.696). The correlation between the ROA indicator and the E, S, G indicators has minimal values, which indicates that there is no relationship between these indicators. In the sample under consideration, factors E, S, G are not decisive for the financial efficiency of Russian

companies, and there is also the possibility of other unaccounted-for factors influencing the dependent indicator.

The next stage was the regression analysis, the data of which are presented in Table 4.

Table 4. The results of the regression analysis.

N=50	Beta	St. Osh. BETA	B	St. Osh. V.	t(46)	p-means.
Holy member			-2.75179	81.46459	-0.03378	0.973199
E	-0.447689	0.268600	-1.48286	0.88967	-1.66675	0.102360
S	0.398930	0.273999	1.63742	1.12464	1.45595	0.152198
G	-0.008673	0.205419	-0.04655	1.10266	-0.04222	0.966506

The regression results for the dependent variable ROA were as follows. The value of the correlation coefficient (R) = 0.24829625, which indicates a weak positive relationship between the independent variables (E, S, G) and the dependent variable (ROA). The coefficient of determination (R^2) = 0.06165103 indicates that the model does not explain a significant part of the variability in ROA. F-statistics (3.46)=1.0074 $p<0.39807$. This value tests the null hypothesis that all coefficients of the independent variables are zero. Since $p<0.39807p < 0.39807p<0.39807$, we cannot reject the null hypothesis, which suggests that the independent variables in general do not have a statistically significant effect on ROA. The standard error of the estimate was 8.2494, which indicates a high variance of predictions relative to the actual ROA values. It can be concluded that the hypothesis of the H1 study has not been confirmed.

The results highlight the need for further research into the impact of ESG on financial performance. Companies and investors should keep in mind that while ESG ratings may be important in the context of sustainability and corporate social responsibility, their impact on financial performance may be more complex. This opens up new directions for future research aimed at a deeper understanding of the impact of sustainable development on the financial stability of companies.

4 Conclusion

The study showed that ESG ratings do not have a significant impact on the financial performance of Russian companies. The results of the study highlight the complexity of the relationship between sustainable development and financial performance. Effective management and investment strategies should take into account both ESG indicators and other key factors affecting the profitability and financial stability of companies. In the future, it is possible to study other factors affecting the financial stability of companies, as well as the use of more complex analysis models to obtain more accurate results. This opens up new areas for research and practical actions in the field of corporate governance and sustainable development.

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