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ROXANA LOREDANA AVRAM

WEST UNIVERSITY OF TIMISOARA, Romania

ALEXANDRU BUGLEA

WEST UNIVERSITY OF TIMISOARA, Romania

ALEXANDRU AVRAM

WEST UNIVERSITY OF TIMISOARA, Romania

THE IMPACT OF CORPORATE GOVERNANCE ON THE COMPANY'S PERFORMANCE

Abstract:

In our paper we have developed an index for measuring the corporate governance in the Romanian economy based on the corporate governance code of Bucharest Stock Exchange. Corporate governance represents measures and policies through which a company achieves its settled objectives. In the first part of our research we have constructed the index by a questionare that was aplied to major Romanian companies, that were split into four major sectors: banking, oil & gas, automotive and agriculture. In the second part of our research we have measured our index' impact on performance taking into consideration ROA, size and liquidity, by using a panel VAR for each sector.

Keywords:

corporate governance, performance, index of corporate governance

JEL Classification: G34, O16

1. Introduction

Corporate governance is a "blueprint" whereby companies are internally managed and supervised by the board of directors in order to protect the interests of all parties involved.

The financial crises that have emerged over the years globally, the spectacular bankruptcies of large corporations or financial institutions, as well as the discrepancy between executives' remuneration and company's size, have demonstrated over the years that implementing corporate governance is not just a fad, but a way of survival, a strategy to improve the performance of companies. Besides the fact that corporate governance contributes to increase the performance, it also requires transparency on all transactions within the company, as well as on relations with the investors, creditors, customers and suppliers. Additionally, the implementation of corporate governance contributes to limiting the abuse of power from the inside on the company's resources, by providing management monitoring tools to ensure that they fully follow the organization's goals, not their own benefits.

Over the years, the literature has confirmed the importance of corporate governance, substantial efforts being made in the developed countries to implement it. Therefore, more than 180 corporate governance codes have been implemented globally, which have been characterized by a high level of convergence in terms of their content (Aguilera, Cuervo - Cazurra, 2004). Corporate governance codes have emerged in developed countries, but the recommendations of best corporate governance practices have been disseminated beyond their borders. In order for the principles of good corporate governance to be respected and also to have a positive influence on the economy in all countries, it is absolutely necessary to have a set of democratic institutions of the market economy.

In the case study presented below, we aimed to study the impact of the corporate governance index on some sectors in Romania through a Vector Auto Regressive (VAR), taking into account the causal relationship between performance and corporate governance, and more specifically the introduction of a set of principles stipulated in the Corporate Governance Code of the Bucharest Stock Exchange, by taking into consideration the specificities of the field analyzed.

2. Synthesis of literature on corporate governance in emerging economies

In this section, we provide a brief review of the theoretical and empirical literature on the implementation of corporate governance principles in emerging economies. The literature on the subject is extremely vast. The study by Black (2001, pp. 89-108) on a sample of Russian firms for 1999 showed a strong correlation between a corporate governance index and market value. Similarly, for 1999-2004, an important economic and statistical correlation between governance and market value was identified (Black et al., 2006, pp.

361-379). In the financial field, however, there are only a few significant, but weak from economic perspective, relations between the quality of governance and operational performance if these two variables are measured over the same period; bond strength decreases even more if the operational performance is measured in a subsequent period (Love, Rachinsky, 2007, p. 17).

Doidge, Karolyi and Stulz (2004) argue that when financial development is weak, incentives to improve corporate governance are low because external financing and better governance mechanisms are becoming costly.

Gillan, Hartzell and Stark (2003) analyze the choosing of corporate governance at firm and industry level in the US. From a global perspective, the situation in the US is unique due to the active struggle for corporate governance control, the high level of financial market development, the complexity of the property concept, and relatively strong investor protection laws.

Durnev and Kim (2005) discover that governance is positively linked to growth opportunities, the need of company for external financing and the concentration of cash flows (ownership concentration). By the means of a series of simultaneous equations, using variables such as governance ratios and firm value, the same authors conclude that firms with better quality of investment opportunities and greater need for external funding are choosing better governance, leading to a better evaluation.

When data on company governance is available, panel models can be estimated, greatly reducing potential endogenous problems. We have taken this into consideration during the case study, a fact identified by Black, Kim, Jang and Park (2005) who analyzed the governance of Korean companies between 1998 and 2003 by using panel data. Therefore, they conclude that corporate governance is an important factor in explaining the value of a firm in Korea. Black, Love, and Rachinsky (2005) estimate panel-type models with fixed and random effects for a sample of Russian firms during 1999-2005 and find that governance can be used to estimate the value of a firm.

We can observe a multitude of studies addressing the causality between corporate governance and the value of firms, a study worth mentioning being made by the authors Da Silva, Luiz, Pereira (2005), based on which we started to design a Corporate Governance Index applicable to Romanian economic companies.

In the research performed by the author Kouwenberg (2006), a cross-regression was used on 320 listed companies in Thailand, measuring the implementation of the principles of good governance in the Thai code by each of the 320 listed companies, based of the obligation specified in the conformity declarations from 2002. Thus, an increase in the standard deviation of the code adoption index was observed, in correlation with a 10% increase in the company's average value (Tobin's Q) over the three-year period for the code's adoption while controlling the company-specific factors and the effects of the industry. The identified relationship is considered very significant and was not present before the code was introduced in 2001, suggesting a causal link between code adoption and firm value.

Reddy, Locke and Scrimgeour (2010) concluded that the new corporate governance recommendations set out by the New Zealand financial authorities in the 2004 corporate governance code had a positive and lasting impact on the financial performance of listed companies.

Grove, Patelli, Victoravich, and Xu (2011) have identified in their research that the quality of corporate governance in the US banking system has a greater impact on financial performance than the quality and conditions of indebtedness, an aspect that we have taken into consideration as well in our case study below.

A relevant study (Alley, Adebayo, Oligbi, 2016) starts from the mutual causality between corporate governance and performance, analyzing the link between the two concepts through a VAR and VEC, raising by the means of this methodology the problem of the lack of studies between performance and governance. Starting from the corporate governance index composed on the basis of indicators regarding the audit committee, board of directors' size and structure, management competencies, they conclude that corporate governance influences significantly the company's performance, computed as ROE, ROA and net profit margin.

A similar study that use the VAR methodology based on panel data is made by the authors Kang, Germann, and Grewa (2016) who follow the implications of social responsibility on performance, and also, the study of Wang, Xiao and Xiao (2016) who track five performance indicators, such as: dividend per unit, return on equity, market value against book value, gross income on managed assets, and dividend yield through a VAR.

3. Corporate Governance in Romania

Corporate governance appears in our country, from a conceptual and regulatory point of view, only at the beginning of the 2000s. The delay is explained through the difficult steps taken in the field of political, legal, economic and social reforms. Governmental policies to liberalize the economy after the anticommunist revolution are lagging behind even after a decade of semi-capitalism. There is almost no strategy for the development of the sectors that could valorize the traditions and human and technological resources of Romanian society. The Bucharest Stock Exchange marks its first transactions since 1995. The Securities Commission fulfills its mission of supervising the circulation of values in a doubtful manner.

Therefore, Romania is an interesting case to be analyzed because the term of corporate governance has only been known since 2000 when factors such as the entry of foreign

investors on the market or privatizations have stimulated the economy and have also contributed to the creation of new efforts for better practices of corporate governance.

In Romania, the code of corporate governance used by companies whose shares are traded on the regulated market is the Corporate Governance Code of the Bucharest Stock Exchange. This code was originally issued in 2001 and then revised and improved in 2008. Also, in September 11, 2015, a revised version of the code was published in order to take into account the knowledge assimilated during the period of crisis and great bankruptcies and also to comply with the standards of the European Union and, implicitly, Romania. The purpose of this Code is to encourage a strong and effective relationship between shareholders and stakeholders of the company, as well as to ensure transparent communication between these parties.

The Bucharest Stock Exchange operates with the "apply or explain" principle, through which specific and accurate information is provided to the public about the compliance of corporate governance principles by listed companies. The code is grouped in several levels, including the following: the main responsibilities of the listed companies, the risk management and internal control system, fair reward and motivation as well as the added value brought by the relations with investors.

4. Research Methodology

In order to measure the impact that the composed index of corporate governance has on performance, we started from the hypothesis that a company that has adopted and implemented the corporate governance code¹ will have a higher financial performance than a company that has not adopted such a code, as well as a sustainable development, both in terms of total assets and profitability.

Therefore, to quantify the impact of corporate governance on the company's performance, we have developed an index of corporate governance (IGC) determined by applying a questionnaire to some companies representative in the energy sector. The questionnaire consists of 20 questions formulated according to the principles set out in the Corporate Governance Code of the Bucharest Stock Exchange, updated in September 2015. The questions are formulated in accordance with the stipulations that have to be respected for a good corporate governance, and cover the following sections: general information about the companies reviewed, the structure of the Board of Directors, the risk management system and the Audit Committee, as well as other relevant information for our research field. The questions are based on responses from public information disclosed by companies, such as company's annual reports, balance sheet and profit and loss account. The determination of the index value was made by summing the positive answers to the

¹ Corporate Governance Code of Bucharest Stock Exchange published in 11 September 2015.

20 questions, being given to each positive answer 1 point and each negative answer 0 points. Therefore, the value of the index took values between 16 and 19 points, depending on the company's dimensions. In conclusion, we can say that a higher value of the index highlights a higher value of the company.

The composite index tracked the degree of compliance of the companies with the principles stipulated in the code of governance adopted by the Bucharest Stock Exchange. The results were centralized and reported to the maximum number of points, thus the index taking values between 0 and 1 depending on the degree of implementation of the principles of the corporate governance code. The results were centralized as a series of time, each industry being treated as a panel.

By taking into consideration the specificity of the energy sector, we used a Vector Auto Regression (VAR), taking into account also the causal relationship between performance and corporate governance, and more precisely the introduction of a set of principles stipulated in the Corporate Governance Code of Bucharest Stock Exchange.

Data:

The data used in the model were extracted from the public financial statements of the company's active in the Romanian energy system in for the period 2007 - 2015. The data were centralized from the financial statements of each company, namely: S.N.G.N. Romgaz S.A., Transgaz S.A., Lindegaz Romania S.R.L, S.P.E.E.H. Hidroelectrica S.A. And S.N. Nuclearelectrica S.A., being treated as a panel.

The main variables of the model are: company size, calculated as logarithm of the total asset, ROA², general liquidity³, indebtedness level and corporate governance index.

Model:

The model used is an unrestricted VAR since the variables used are integrated with different orders.

²ROA = Net Profit / Total Assets * 100

³ General Liquidity = Current Assets / Short Term Debts

$$ROA_{1,t} = \alpha_2 + \Delta \sum_{j=1}^{j} \beta_{1,j} IGC_{1,t-j} + \Delta \sum_{j=1}^{j} \delta_{1,j} ROA_{1,t-j} + \Delta \sum_{k=1}^{k} \varepsilon_{1,j} LG_{1,t-j} + \Delta \sum_{k=1}^{k} \epsilon_{1,j} GI_{1,t-j} + \Delta \sum_{k=1}^{k} \theta_{1,j} TA_{1,t-j} + u \mathbf{1}_{t}$$

Where:

ROA = return on assets / profitability

ICG = corporate governance index

LG = general liquidity

HI = indebtedness level

TA = company size expressed as total assets

$$TA_{1,t} = \alpha_2 + \Delta \sum_{j=1}^{j} \beta_{1,j} IGC_{1,t-j} + \Delta \sum_{j=1}^{j} \delta_{1,j} ROA_{1,t-j} + \Delta \sum_{k=1}^{k} \varepsilon_{1,j} LG_{1,t-j} + \Delta \sum_{k=1}^{k} \epsilon_{1,j} GI_{1,t-j} + \Delta \sum_{k=1}^{k} \theta_{1,j} TA_{1,t-j} + u1_t$$

The number of Lags chosen is 1 as results from Table no. 1.

VAR satisfies the condition of stability, as it results from Table no. 2, the condition regarding autocorrelation, as it results from the Table no. 3, and the condition of heteroscedasticity according to the Table no. 4.

Lag	LogL	LR	FPE	AIC	SC	HQ			
	-								
0	155.2708	NA	0.03006	10.68472	10.91825	10.75943			
1	12.73131	268.8033*	2.24e-06*	1.151246*	2.552443*	1.599501*			
2	35.84278	29.27453	2.95E-06	1.277148	3.84601	2.098949			
3	53.01349	16.026	7.69E-06	1.7991	5.535627	2.994447			
	* indicates lag order selected by the criterion								
	LR: seque	ential modifie	d LR test stat	tistic (each te	est at 5% lev	el)			
	FPE: Final prediction error								
AIC: Akaike information criterion									
SC: Schwarz information criterion									
HQ: Hannan-Quinn information criterion									

Table no. 1 Selection of the optimal number of lags

Source: own processing

Table no. 2 Assuring the VAR stability

Root	Modulus
0.973738	0.973738
0.830848 - 0.089874i	0.835695
0.830848 + 0.089874i	0.835695

0.700889 - 0.067629i	0.704144				
0.700889 + 0.067629i	0.704144				
No root lies outside the unit circle.					
VAR satisfies the stability condition.					

Source: own processing

Table no. 3 Compliance with the autocorrelation conditions of the Portmanteau test

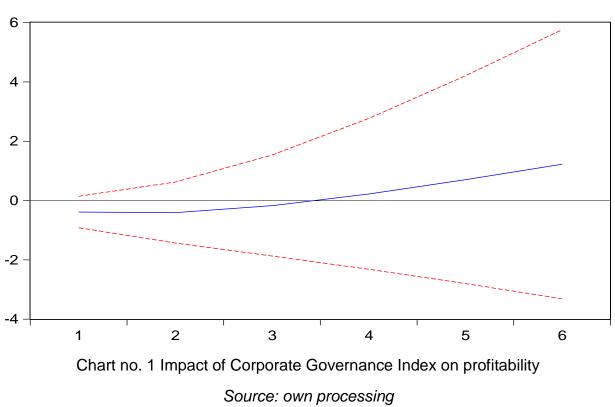
Lags	Q-Stat	Prob.	Adj Q- Stat	Prob.	df		
1	29.04448	NA*	29.78921	NA*	NA*		
2	2 39.678		0.0315 40.98238		25		
*The test is valid only for lags larger than the VAR lag order.							
df is degrees of freedom for (approximate) chi-square distribution							

Source: own processing

Table no. 4 Result of the heteroscedasticity test

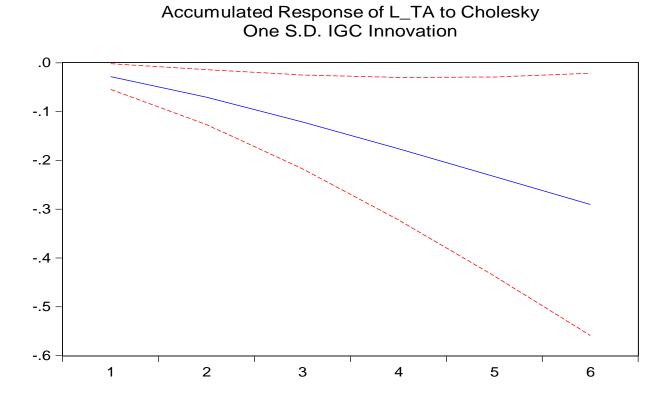
Joint test:					
Chi-sq	df	Prob.			
181.4285	150	0.041			

Source: own processing





In the Chart no. 1 we can observe a negative impact on profitability of the corporate governance index of companies in the energy system, following a downward trend, but in the last three years of the observation period the impact is positive, with a further improving trend. This confirms the opinions expressed in the specialized literature and the hypothesis of our research that good corporate governance positively influences the long-term profitability of the company. In conclusion, under the conditions of well-implemented corporate governance that complies with the principles of the Corporate Governance Code of the Bucharest Stock Exchange, we can observe a positive impact on the profitability of the company.



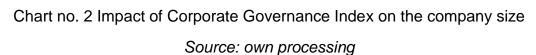
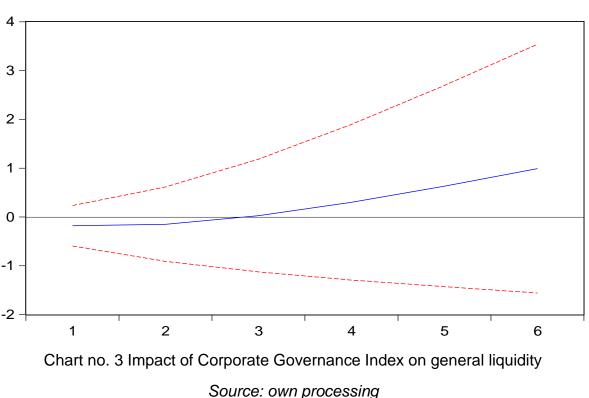
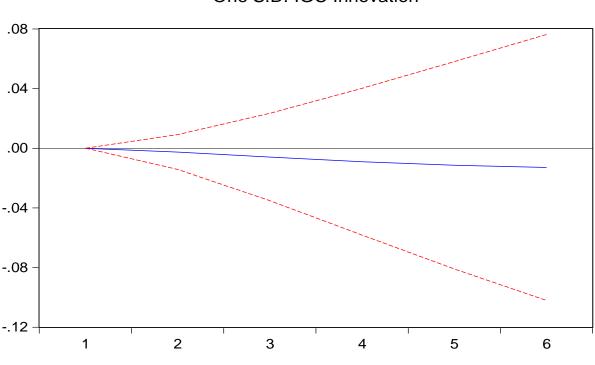


Chart no. 2 shows a negative impact of the corporate governance index on the company's size in the Romanian energy system, on a downward trend over the entire observation period of six years. This impact may be due to one of the companies presented in our research, Hidroelectrica, which has been in insolvency for 4 years, undergoing a radical process of restructuring and efficiency. The most important measure taken during the insolvency period was the termination of bilateral contracts concluded with several energy traders, since the main reason for the insolvency mentioned in the Administrators' Report was the long period over which the contracts were concluded, for more than 10 years, without the possibility of modifying the contractual conditions. Therefore, we can conclude that the corporate governance index had a negative impact on the size of the company in the energy system, a result that was also influenced by the insolvency period of one of the companies analyzed.



Accumulated Response of LG to Cholesky One S.D. IGC Innovation

In Chart no. 3 there is a positive impact of the corporate governance index on general liquidity in the Romanian energy system, on an ascending trend over the entire observation period of 6 years. A higher liquidity ratio demonstrates the ability of companies to pay their short-term payment obligations and also a lower default risk, which is reflected in the improvement of companies' performance. Therefore, with the effective implementation of corporate governance, we expect an increase in the company's overall liquidity and, implicitly, an increase in the company's performance.



Accumulated Response of GI to Cholesky One S.D. IGC Innovation

Chart no. 4 Impact of Corporate Governance Index on indebtness level Source: own processing

From Chart no. 4 we can observe that the corporate governance index has a negative impact on the indebtedness degree of companies active in the Romanian energy system, with growth tendencies, for the entire analyzed period of 6 years. A higher indebtedness rate highlights a high level of risk in terms of funding policies. Therefore, we can conclude that the impact of the corporate governance index is to mitigate an increase in corporate indebtedness, which is beneficial to the company, both in the long run and in the short term.

Table no. 5 D	ecomposition of RC	A variance
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	Period	S.E.	GI	IGC	L_TA	LG	ROA
Ī	1	0.056254	35.84338	3.402457	0.921381	0.033846	59.79894
Ī	2	0.069364	42.80622	1.934277	1.010712	0.22115	54.02765

3	0.075346	47.6649	1.950447	1.053102	0.508444	48.82311	
4	0.078346	50.79845	2.796122	1.06426	0.851906	44.48926	
5	0.079929	52.68698	3.996517	1.057487	1.214654	41.04436	
6	0.080811	53.74415	5.260433	1.042054	1.570131	38.38324	
Cholesky Ordering: GI IGC L_TA LG ROA							

Source: own processing

As it can be observed in the Table no. 5, the impact of the corporate governance index explains 3.4% of the ROA variation in the first year of observation, reaching in the 6th observation year at a 5.2% explanation of the ROA variation. During the analysis period, the impact of the index had a downward trend in the 2nd and 3rd year, and starting with the 4th year it began to explain the ROA variation. In this respect, the one-period lag shows the decrease from 3.4% to 1.9%.

Period	S.E.	GI	IGC	L_TA	LG	ROA	
1	0.056254	27.59177	7.891161	64.51707	0	0	
2	0.069364	21.76621	13.48961	64.19209	0.541685	0.01041	
3	0.075346	17.36684	18.475	62.60944	1.528482	0.020235	
4	0.078346	14.14976	22.48106	60.63393	2.708807	0.026431	
5	0.079929	11.81086	25.53437	58.70335	3.921416	0.029995	
6	0.080811	10.09808	27.79516	56.99613	5.078333	0.032291	
Cholesky Ordering: GI IGC L_TA LG ROA							

Table no. 6 Decomposition of total assets variance

Source: own processing

As shown in Table no. 6, the impact of the corporate governance index explains 7.89% of the total assets variation in the first year of research, reaching in the 6th year of observation at an explanation of 27.79% of the total assets variation. In this respect, the one-period lag shows the increase from 7% to 13% (lag 1 and lag 2).

5. Conclusions

As a conclusion of the study performed in the Romanian energy system, we noticed a slightly negative impact of the corporate governance index on profitability, with a significant improvement trend over the period analyzed, which confirmed both the specialized literature in the field and the research hypothesis that we set ourselves. Thus, with the efficient implementation of corporate governance within the energy system, which fully respects the principles set out in the Corporate Governance Code of the Bucharest Stock Exchange, it can be observed a positive impact on the long-term profitability of the company.

Also, in our research, we noticed a negative impact of the corporate governance index over the company's size in the Romanian energy system, which in our view is mainly due to the insolvency of one of the analyzed companies, Hidroelectrica that has undergone a radical restructuring and streamlining process for 4 years.

On the other hand, the corporate governance index has a positive impact on liquidity in the Romanian energy system over the entire analyzed period, which demonstrates the ability of companies to pay their short-term payment obligations as well as a lower risk of non-payment. In conclusion, the implementation of a corporate governance code in the Romanian energy system will generate an increase in the overall liquidity of companies, which in turn will contribute to an increase in companies' performance.

The research also proved a negative impact of the corporate governance index on the indebtedness of companies in the Romanian energy system. Considering a relationship of direct proportionality between indebtedness level and funding risk, we can conclude that the corporate governance index contributes to mitigate this risk, an impact that has a positive influence on companies, both on long and short term.

In conclusion, our research reveals the necessity to continuously adapt the corporate governance code to the financial realities present on the Romanian economic market.

Appendices

Annex no. 1. Perceptual Investigation Questionnaire on corporate governance of the company

This questionnaire is designed to assess the perception of respondents on the quality of financial reporting as a means of financial communication.

General Information

- 1. Is the company listed on the Bucharest Stock Exchange?
- a) YES;
- b) NO.

2. Is the company part of an international corporation?

a) YES;

- b) NO.
- 3. Does the company or "parent company" have a corporate governance code?
- a) YES;
- b) NO.

4. Does the company submit the financial statements to the data provided by the Romanian legislation in force?

- a) YES;
- b) NO.

5. Does the company use international accounting standards (IFRS, IAS or US GAAP)?

- a) YES;
- b) NO.

6. Is the company audited by one of the companies in BIG4 (Ernst & Young, Deloitte, KPMG and PricewaterhouseCoopers)?

- a) YES;
- b) NO.

Structure of the Board of Directors

7. Is there a clear division of responsibilities between the Board of Directors and the executive management of the company?

a) YES;

b) NO.

8. Is the President of the Board of Directors the same person as the general manager of the company?

a) YES;

b) NO.

9. Does the Board of Directors consist of at least 5 members and no more than 9 members?

- a) YES;
- b) NO.

10. Is the Board of Directors composed only of company employees and majority shareholders?

- a) YES;
- b) NO.

11. Aren't the independent members of the Board of Directors employees of the company and have not held such a position in the last 5 years??

- a) YES;
- b) NO.

Risk Management System and Audit Committee

- 12. Does the company have a risk management and internal control system?
- a) YES;
- b) NO.
- 13. Does the Audit Committee consist of at least three members?
- a) YES;
- b) NO.

14. Does the Audit Committee have at least one member who is an independent, non-executive administrator?

- a) YES;
- b) NO.

15. Does the Audit Committee have at least one member with relevant expertise and having relevant certifications in the field?

- a) YES;
- b) NO.

16. Is the Audit Committee responsible for the annual assessment of the internal control system?

- a) YES;
- b) NO.

17. Is the Audit Committee responsible for monitoring generally accepted internal audit standards?

- a) YES;
- b) NO.

Other relevant information

18. Does the Company have a policy of distributing dividends or other benefits to shareholders annually?

- a) YES;
- b) NO.

19. Are external auditors present at the Shareholders' General Assembly when their reports are presented at meetings?

- a) YES;
- b) NO.

20. Do the quarterly and half-yearly financial reports of the company include information on the company's financial indicators (operating profit, net profit, as well as other relevant company indicators) in both Romanian and English?

- a) YES;
- b) NO.

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