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AUDIT QUALITY AND CORPORATE GOVERNANCE: EVIDENCE FROM THE BUCHAREST STOCK EXCHANGE

Abstract

Corporate governance attributes represent a resort for achieving the quality of the audit process, being a driving force of the entity`s corporate governance mosaic. The aim of this research is to investigate the association between audit quality and corporate governance attributes in the case of Romanian`s listed entities. In order to achieve this goal, a multiple regression was constituted with the following variables: audit quality as a dependent variable, and a series of corporate governance elements as independent variables, while firm size, firm age and industry being designed as controls. The full sample consists of the entities listed on the Bucharest Stock Exchange in the period 2008-2012, compiling both tier I, II and III companies. This research contributes to the existing literature in the area of emerging economies by being the first article that addresses the issue of audit quality and corporate governance attributes at the level of listed companies in Romania, one of the European Union`s emerging economies.

Keywords

Audit, Corporate governance, Emerging economies, Quality

1. Introduction

Corporate governance is perceived as being a key-element in the capital market`s development. According to World Bank Report – Improving Corporate Governance in Emerging Markets (2011), good corporate governance reduces the emerging markets` vulnerability associated to financial crisis, reduces the capital and transactions cost and, moreover, conducts to the development of capital markets, due to the fact that the capital markets represent a transparency conductor.

Corporate governance has been perceived as a vital tool in assessing the company`s health, especially under conditions of financial distress, such as the financial crisis. According to Adeyemi and Temitope (2010), the weakness of corporate governance is perhaps the most important factor blamed for the corporate failure, reason why the issue of *good corporate governance practices* gains a vivid importance, especially after the economic and financial crisis.

The company`s decision of adopting a specific corporate governance mechanism is influenced by a series of endogenous factors, such as the fundamental characteristics of that entity, managerial attributes and other corporative variables. Still, one of the most

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important functions that the corporate governance can fulfil is the one of assuring the quality of financial reporting (Cohen, Wright and Krishnamoorthy, 2004). In order to achieve its goal, out of the corporate governance mosaic, the audit committee plays a critical role by its main attribute of overseeing the financial reporting process under its major duty of certifying the integrity and credibility of financial reports.

This research aims to investigate the association between audit quality and corporate governance attributes in the case of Romanian`s listed entities. In Romania, one of the European Union`s emerging economies, the Bucharest Stock Exchange has proven its interest in the importance of corporate governance area by implementing a Code of Corporate Governance and specific Guidelines applicable to the listed companies since 2008.

The Bucharest Stock Exchange Code of Corporate Governance addresses a series of specific aspects related to corporate governance, such as corporate governance structures, shareholders` rights, the Board composition, transparency, financial reporting, internal control and risk management. Although the Code embraces a wide area of corporate governance aspects, its adoption by the listed companies is made on a voluntary basis, fact that leads to the assertion that the corporate governance rules elaborated by the Bucharest Stock Exchange are neither legally binding, nor mandatory.

Taking the previous aspects into consideration, it can be stated that the Romanian`s Code of Corporate Governance role is to promote a transparent and responsible managerial behaviour in accordance with international best practices, without enforcing these rules applicable for the listed companies. Based on this aspect, it is very difficult to capture the way the external auditors interact with the corporate governance practices adopted on a voluntary basis by the client.

The reminder of this paper is organized as it follows: Section 2 provides the relevant literature review, being centred on the researches conducted in the area of corporate governance and external auditor, Section 3 is dedicated to the research design and the methodology used in order to test the regression, while the last part of this article concerns the interpretations of the research`s results. Finally, Section 5 presents the limitations of this research and Section 6 reveals the main conclusions arising from the findings of this study.

2. Literature review

According to Deloitte (2013), the audit committee is seen as a ``key fulcrum of any company``, thus the responsibility for assessing effectiveness of the audit committee is assuming more and more importance.

The Chief Executive Officer duality signals the separation between decision control and decision management (Fama and Jensen, 1983; Finkelstein and D’Aveni, 1994), fact that leads to a concentration of power that reduces board monitoring effectiveness (Finkelstein and D’Aveni, 1994) which resides into lack of transparency and high information asymmetry. Taking these findings into account, it can be stated that companies with Chief Executive

Officer duality are more likely to be associated with a lower level of disclosure (Gul and Leung, 2004).

Another relevant study was conducted by Abdullah (2006) in an emerging economy and his findings indicate that the separation between the Board Chairman and the Chief Executive Officer, a higher proportion of non-executive directors on the Board, lower level of gearing and more profitable firms are more likely to reduce the length of the audit process. In the same area of researches, Afify (2009) investigated corporate governance variables in the Egyptian context revealed that Board independence and the separation between the Board Chairman and Chief Executive Officer decreased on a significant manner the length of audit.

The prior literature provides findings in supporting the assumption that Big 4 auditors conduct higher quality audits compared to non-Big 4 auditors. For example, Lawrence et al. (2011) provide suggestive evidence that results in prior literature need to be reconsidered, namely because these previous results could be explained by client-specific characteristics, such as firm size, that lead to a selection bias in the analyses. They conclude that these arguments may be leading to an erroneous inference that Big 4 auditors conduct higher quality audits.

The external auditor plays a crucial role in promoting the quality of financial reporting. The researches done in this area suggest that strong corporate governance mechanisms are associated with selecting auditors of a higher quality (such as Big 4). At a consensus level, the studies conducted in prior literature emphasise the positive association between audit committee`s independence and expertise and the external audit function`s efficacy (Cohen, Wright and Krishnamoorthy, 2004).

Due to the fact that the major observable outcome of an audit process is represented by the audit report, in the literature various proxies have been used in order to assess audit quality. Francis et al. (1999) suggest that Big 4 auditors are able to constrain opportunistic and aggressive reporting because their clients have higher total accruals, but lower discretionary accruals. This approach is focused on earnings management, on managerial behaviour which interfere with the financial reporting process. According to Lawrence et al. (2011), an extensive stream of literature focuses on the client`s financial statements, in which discretionary accruals are often used as a proxy for audit quality as they reflect the auditor`s constraint over management`s reporting decisions.

3. Methodology and research design

3.1. Sample Selection

In order to assess the association between audit quality and corporate governance attributes at the level of Romanian listed companies, the following restrictions are being used:

- The financial institutions were eliminated due to homogeneity considerations;
- The analyzed period is of five years, between 2008 and 2012;
- The entities must be present on the Bucharest Stock Exchange in all of these five years;

- The sample compiles entities listed on the Bucharest Stock Exchange Tier I, II and III.

After applying these restrictions, the final sample consists of 61 entities, analyzed through a period of five years.

3.2. Research Hypotheses Development

The research`s hypotheses were developed in order to assess the aim of this study, namely to investigate the association between audit quality and specific corporate governance attributes. In accordance, six hypotheses were formulated as it follows:

- *Hypothesis 1: There is a significant association between audit quality and board independence.*
- *Hypothesis 2: There is a strong correlation between audit quality and Chief Executive Officer Duality.*
- *Hypothesis 3: There is a significant association between audit quality and institutional ownership.*
- *Hypothesis 4: There is a strong relation between audit quality and managerial ownership.*
- *Hypothesis 5: There is a significant association between audit quality and audit committee existence.*
- *Hypothesis 6: There is a strong relation between audit quality and firm size, business complexity and financial leverage.*

3.3. Empirical Model

In order to test the research hypothesis, the modified Soliman and Elsalam (2012) logistic regression was used:

$$AQ=\beta 0+\beta 1BI+\beta 2CD+\beta 3IO+\beta 4MO+\beta 5AC+\beta 6CONTROLS+\varepsilon$$

Where:

AQ: audit quality; BI: board independence; CD: CEO duality; IO: institutional investors; MO: managerial ownership; AC: audit committee existence; CONTROLS: control variables composed of three independent variable, namely SZ: firm`s size; CM: business complexity and LE: financial leverage.

This multiple regression was implemented for determining the association between the audit quality which represents the dependent variable and specific corporate governance attributes, which constitute the independent variable.

3.3.1. Variables` Definition

The dependent variable of the regression is represented by the Audit quality, while Board independence, CEO duality, Institutional ownership, Managerial ownership and Audit committee existence are defined as independent variables. Firm size, Business complexity and Financial leverage are control variables.

- Audit quality (AQ) was dichotomous in nature and the size of audit firm (Big four or non-Big four) was used as a proxy for audit quality. Further, this variable equals 1 if the external auditor is Big four and 0 otherwise;
- Board independence (BI) was measured in terms of percentage of non-executive members in the board of directors;
- CEO duality(CD) was dichotomous and operated as 1 if the position of Chairman and Chief Executive Officer was occupied by the same person and 0 otherwise;
- Institutional investors (IO) was measured through the percentage of shares owned by institutions in relation to the company`s issued capital;
- Managerial ownership (MO) was computed as the number of shares owned by managers in relation to the company`s issued capital;
- Audit committee existence (AC) was defined as a dummy variable: it equals 1 if the company has an audit committee, otherwise it equals 0;
- CONTROLS: Control variables composed of firm size, business complexity and firm`s financial leverage, variables described below as it can be noticed:
  1. Firm size (SZ) was measured using the natural logarithm of total company assets;
  2. Business complexity (CM) was defined by dividing the sum of total accounts receivable and inventories to total assets;
  3. Firm`s financial leverage (LE) was measured as the ratio of debt to total assets.

4. Results and discussions

4.1. Descriptive Statistics

The Descriptive Statistics section is devoted to presenting and interpreting the results of the data collected in order to test the research`s hypothesis. The demarche was conducted using Microsoft Excel Data Analysis Tool, and the output of this statistical approach is being analyzed as it follows.

Variables	Min	Max	Mean	Std.Dev.	Range
Audit Quality	0	1	0.2786	0.4490	1
Board Independence	0	0.85	0.6323	0.1522	0.85
CEO Duality	0	1	0.4688	0.4998	1
Institutional Ownership	0	0.98	0.5623	0.2830	0.98
Managerial Ownership	0	0.78	0.1310	0.2285	0.78
Audit Committee	0	1	0.2983	0.4582	1
Firm Size	16.51	24.36	19.0042	1.4223	7.85
Business Complexity	0.006	1.9	0.3434	0.2398	1.894
Financial Leverage	0.005	1.45	0.2878	0.2559	1.445

Table 1: *Descriptive Statistics*

The results presented in Table 1 indicate that 28% (more precisely 27.86%) of the Romanian listed companies are audited by a Big 4 audit firm. In which concerns the independence of the Board, 63% (63.23%) of the members are classified as independent, reaching a minimum of 0 independent members and a maximum of 85% non-executive members. When analyzing the CEO duality, the results show that 47% (46.88%) of the Romanian companies listed on the Bucharest Stock Exchange in the period from 2008 until 2012 are characterised by the fact that the position of Chairman and the one of Chief Executive Officer is being held by the same person, duality which supports this pattern in terms of emerging economies corporate governance characteristics. Overall, the Romanian entities Boards seem to be dominated by a single person.

Moving forward with the analysis of descriptive statistics, the results indicate, through the percentage of institutional ownership, namely 56.23%, that the average shares owned by institutions related to the companies` issued capital reach a percentage of approximately 56. As far as the control variables are concerned, Table 1 provides evidence of these three controls: firm size, business complexity and financial leverage.

4.2. Regression Output Analysis

In order to test the proposed hypotheses for this research, the analysis of logistic regression is being conducted. Table 2 presents the Matrix Correlation Analysis, namely the demarche of testing the multicollinearity issue that could affect the variables.

As it can be noticed in the following table, none of the variables is being affected by multicollinearity, due to the fact that the Pearson`s *R Coefficient* between each pair is situated in normal parameters of acceptance.

	AQ	*BI*	*CD*	*IO*	*MO*	*AC*	*SZ*	*CM*	*LE*
AQ	1								
BI	-0.33027	1							
CD	-0.17368	-0.05457	1						
IO	-0.00397	0.09822	-0.15934	1					
MO	-0.05224	0.0277	0.09639	-0.66153	1				
AC	0.28193	-0.11071	-0.16751	0.26738	-0.20829	1			
SZ	0.50593	-0.12625	-0.08303	0.22351	-0.17908	0.35515	1		
CM	-0.14893	0.08502	0.02101	-0.19402	0.13442	-0.02926	-0.29175	1	
LE	0.05077	-0.03707	-0.03637	-0.07018	0.07111	-0.04437	-0.00312	0.53253	1

Table 2: *Matrix Correlation Analysis*

Table 3. presented below, illustrates the covariance analysis between the research`s variables.

	AQ	BI	CD	IO	MO	AC	SZ	CM	LE
AQ	0.20102								
BI	-0.0225	0.02309							
CD	-0.03886	-0.00414	0.24903						
IO	-0.0005	0.00422	-0.02247	0.07983					
MO	-0.00535	0.00096	0.01098	-0.04265	0.05208				
AC	0.05783	-0.0077	-0.03825	0.03456	-0.02175	0.20934			
SZ	0.3221	-0.02724	-0.05884	0.08967	-0.05803	0.23074	2.01633		
CM	-0.01599	0.00309	0.00251	-0.01313	0.00735	-0.00321	-0.0992	0.05734	
LE	0.00582	-0.00144	-0.00464	-0.00507	0.00415	-0.00519	-0.00113	0.03259	0.06532

Table 3: *Covariance Analysis*

Regression Statistics	
Multiple R	0.596663332
R Square	0.356007132
Adjusted R Square	0.343040833
Standard Error	0.36400159
Observations	305

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	21.82732252	3.63789	27.4563	4.90576E-26
Residual	298	39.48415289	0.1325		
Total	304	61.31147541			

Table 4: *Regression Output*

In the table 4, the results of the regression output are being presented as a basis for testing the initial hypothesis developed for this study. The R Square and Adjusted R Square describe the explanatory power of the regression model. Still, the Adjusted R Square for this regression is 34%, value which does not promote an acceptable explanatory power for the model.

As far as the corporate governance attributes are concerned, the following table (Table 5) indicate that there is no association between audit quality and board independence, namely the first Hypothesis is not being validated. When analyzing the p-value for the CEO Duality variable, the significance of this value indicates a negative association between the audit quality and the CEO duality, fact which supports Hypothesis 2. Under this result, it can be stated that the more the audit quality increases, the less importance gains the single person that cumulates the two functions: CEO and Chairman.

	Coefficients	Standard Error	t Stat	P-value
Intercept	-1.744183475	0.330966386	-5.26997	2.6E-07
BI	-0.772994661	0.141192035	-5.47478	9.3E-08
CD	-0.135020272	0.042769369	-3.15694	0.00176
IO	-0.203645854	0.102283585	-1.99099	0.04739
MO	-0.061022651	0.122799909	-0.49693	0.61961
AC	0.10625943	0.050441943	2.10657	0.03599
Controls	0.135765818	0.015838014	8.57215	5.6E-16

Table 5: *Regression Variables` Results*

The regression variables` results show that there is a negative association between audit quality and institutional ownership in the case of Romanian`s listed entities, finding which supports Hypothesis 3. Still, when taking into account the managerial ownership, the results indicate no association between this corporate governance attribute and the audit quality (p-value of 0.62), fact that does not validate the research`s Hypothesis 4.

	Coefficients	Standard Error	t Stat	P-value
Intercept	-1.698505255	0.343609815	-4.94312	1.3E-06
BI	-0.731467585	0.141134328	-5.18278	4.1E-07
CD	-0.135760853	0.042389376	-3.20271	0.00151
IO	-0.249767697	0.102678162	-2.43253	0.01559
MO	-0.060570279	0.12166906	-0.49783	0.61897
AC	0.108577735	0.050767561	2.13872	0.03328
SZ	0.137992989	0.016781603	8.22287	6.3E-15
CM	-0.099767493	0.111455428	-0.89513	0.37144
LE	0.108573607	0.098486038	1.10243	0.27117

Table 6: *Regression Variables` Results- Controls*

Empirical results indicate a strong positive association between audit quality and the existence of an audit committee at the companies` level, supporting Hypothesis 5. This finding suggests that the audit committee is responsible for the appointment of a Big 4 audit firm, recommending, in accordance, the nomination of the external auditor. When analyzing the controls, the results indicate a positive association between audit quality and firm size, partially supporting Hypothesis 6, as Table 6 presents. Still, the results do not indicate an association between audit quality and business complexity, on the one hand, and audit quality and financial leverage, on the other hand.

5. Limitations of this research

This research has several drawbacks. First of all, the sample consists of 61 entities analyzed through a period of five years, fact that leads to a sample small in size and, as a consequence, to a sceptical approach in evaluating the results. Still, the sample remains the same throughout the analyzed period of time, leading to a relevant output, from this point of view. Second of all, the R Square and Adjusted R Square- which show the explanatory power of the model- are far below 80%, conducting to a regression which has a small explanatory power for the selected entities.

6. Conclusions and further research

The aim of this research is to examine the association between the audit quality and specific corporate governance attributes in the case of Romanian`s listed entities. This study reveals that there is a negative association between the audit quality and the CEO duality, on the one hand, and institutional ownership, on the other hand. Moreover, the empirical results indicate a strong positive association between audit quality and the existence of an audit committee at the companies` level.

Still, in the case of Romania, the results indicate that there is no association between audit quality and board independence, as well as managerial ownership. Thus, all the other variables that were found not to have a significant impact on the audit quality had, however, a punctual correlation with the quality of audit, at certain levels.

The above-mentioned findings emphasise the influence of corporate governance attributes on the quality of financial reporting process, especially in an emerging economy, characterized by a less-developed financial infrastructure and a real need for transparency and stronger corporate governance mechanism, all of these necessary into achieving a market-economy status.

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Appendix Sample - Companies listed on the Bucharest Stock Exchange from 2008 until 2012

Nr crt	Company Name
1	Aerostar
2	Alro
3	Altur
4	Alumil Rom Industry
5	Amonil
6	Antibiotice
7	Armatura
8	Artego
9	Bermas
10	Biofarm
11	Boromir Prod
12	C.N.T.E.E Transelectrica
13	Calipso
14	Carbochim
15	Casa de Bucovina - Club de munte
16	Cemacon
17	COMCM
18	Comelf
19	Compa
20	Compania Energopetrol
21	Concefa
22	Condmag
23	Conpet
24	Contor Group
25	Dafora
26	Electroapartaj
27	Electroarges
28	Electromagnetica
29	Electroputere
30	Farmaceutica Remedia
31	Grupul Industrial Electrocontact
32	Impact Developer&Contractor
33	Mecanica Ceahlau
34	Mefin
35	MJ Maillis Romania
36	Oil Terminal

37	Oltchim
38	OMV Petrom
39	Petrolexportimport
40	Prefab
41	Prodplast
42	Retrasib
43	Romcarbon
44	Rompetrol Rafinare
45	Ropharma
46	S.N.T.G.N Transgaz
47	Santierul Naval Orsova
48	Transilvania Constructii
49	Sinteza
50	Siretul Pascani
51	Socep
52	Stirom
53	Teraplast
54	TMK- Artrom
55	Turbomecanica
56	Turism Felix
57	Turism, Hoteluri, Restaurante Marea Neagra
58	VES
59	voestalpine VAE Apcarom
60	Vrancart
61	Zentiva