CORPORATE GOVERNANCE AND AUDIT PRACTICES, FIRM LEVEL INDICATORS. EVIDENCE FROM EMERGING EUROPE

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Abstract

Using a sample of listed companies, for a ten-year period, from Central and Eastern European (CEE) countries, we aim to analyze corporate governance and audit practices at firm level through regression Probit model. In order to conduct the analysis we manually collected data from the Annual Reports of firms for our dataset regarding the corporate governance and audit characteristics. Data regarding the financial characteristics was collected from Obis database. We found, among other financial characteristics, that operation performance is associated with higher probability of formatting an independent internal audit committee. In addition, firms that have higher operation performance are more likely to be audited by a Big4 auditor and have lower probability in having CEO duality. Our results contribute to corporate practices by evidencing adoption, acceptance and diffusion of corporate governance codes and international audit standards in emerging Europe at firm level and by supporting driving value for businesses.

Keywords

Corporate Governance practices, Internal Audit practices, Emerging Europe, Performance

JEL Classification

M42; G34; G32

Introduction

Corporate governance and audit practices represent important factors that influence the performance and long-term development of companies. The corporate governance codes and audit standards provide international general framework of the best practices that are required in order to ensure high quality of corporate governance and audit practices. There are studies that found significant variation between countries regarding corporate governance practices at firm level (Gompers and Metrick, 2003; Klein et al. 2004). This suggests that corporate governance adoption has a voluntary choice. Studies that analyzed the voluntary choice of corporate governance adoption (Anand et al., 2006) suggest that companies voluntary

implement best practices of corporate governance in order to assure investors that their money are well invested and certifying that stakeholders and their role in product value is taken into consideration (Gnan et al., 2013).

Our research aims in evidencing adoption, acceptance and diffusion of corporate governance codes and audit standards in emerging Europe at firm level and provide valuable information regarding the corporate governance and audit practices and trends in the corporate sector.

Our paper is structured as follows: Section 1 is represented by the theoretical background regarding corporate governance and audit practices; section 2 provides the methodological design of the paper; section 3 provides results of our analysis and section 4 offers conclusions.

Literature review

Corporate governance varies across countries and firms, but there are common corporate governance codes (OECD, 2015) and audit practices (IIA, 2017) that are recommended for all countries and firms in order to assure high quality of corporate governance and audit practices. This paper`s main goal is to deliver detailed descriptive analysis using firm level corporate governance and audit indicators in emerging countries in order to provide valuable information regarding the actual corporate governance and audit practices in CEE listed firms. Using a sample of Canadian firms (Anand et al., 2006) analyzed the voluntary choice of corporate governance adoption and found that companies voluntary implement best practices of corporate governance in order to assure investors credibility and efficient resource management. Using a sample of 296 private non-bank Indian firms (Balasubramanian et al., 2009) created an index formatted by board independence and procedure, auditor independence and procedure stakeholder rights and other corporate governance characteristics in order to describe the corporate governance practices in India. They found that the most of the firms have board independence and don`t have CEO duality. In addition, their results provide evidence that firms from India are more likely to have audit committee.

Di Miceli da Silveira A et al., 2009 analyzed the voluntary adoption of corporate governance best practices in listed Brazilian firms from 1998 to 2004 and investigated the firm-level corporate governance quality. Their results suggest that there are divergent level of adoption of corporate governance practices, also firm value and firm size is positively associated with corporate governance quality.

Chen, and Li, 2013 analyzed the voluntary adoption of corporate governance and audit practices using a 376 listed firms in Toronto Venture Exchange. Their results indicated that firms with low compliance costs and greater future financing needs are more likely to adopt the new current in corporate governance and audit practices, and this decision has a positive effect in increase firm value and a negative impact on company`s cost of equity capital.

Groff and Valentincic, 2011, investigated the determinants of voluntary audit committee using a sample of 59 listed companies form Slovenia. Their result indicated that large firms that have large supervisory board and less financial debt are more likely in having audit committees. Gnan et al., 2013 using a sample of 37 Italian local public utilities, analyzed specific management tools used to improve corporate governance practices. Their results suggest that high quality of corporate governance is positively influenced by stakeholders ‘role in product value. Adawi and Rwegasira, 2011, investigated corporate governance voluntary practices from UAE listed companies. Their results suggest that the primary factors that influence corporate governance practices are the firm size, the composition of the Board and experienced directors.

Data and Methodology

Our prime focus is to determine the corporate governance and audit practices of listed firms from CEE countries and to establish the adoption, acceptance, and diffusion of corporate governance principles and audit standards. In this regard, we used in our analysis data regarding listed firms form CEE countries, for 10 years period (2004-2013).

Our data consist in nine numerical variables representing the financial characteristics of firm retrieved from Orbis Database and five dummy variables that characterize the corporate governance and audit practices in accordance with corporate governance codes and audit standards (OECD, 2015; IIA, 2017), presented with the description in table no. 1.

Table no. 1 Variable description

Variable	Description
ROA	Return on assets, calculated as EBIDA divided by total assets
ROE	Return on equity, calculated as EBIDA divided by total equity
GR4	Level of indebtedness, calculated as total debt divided by total assets
CSR	Fixed assets turnover ratio, calculated as net sales divided by net assets.
ISR	Operating income margin, calculated as operating revenue divided by net sales
Liq	Liquidity ratio, calculated as logarithm of liquidity ratio
STK	Stocks, calculated as natural logarithm of stocks
Deb	Debtors, calculated as total liabilities divided by total assets
Size	Firm Size, calculated as natural logarithm of total assets
EAI	Dummy variable, coded 1 if there is an internal audit department and 0 otherwise
CDy	Dummy variable, coded 1 if there CEO duality and 0 otherwise
BoI	Dummy variable, coded 1 if there is an independent Board and 0 otherwise
IAI	Dummy variable, coded 1 if is an independent internal audit committee and 0 otherwise
BIG4	Dummy variable, coded 1 if the firm is audited by one of the Big4 auditors and 0 otherwise

Source: Authors calculation

The variables regarding financial characteristics are represented by the two measurements of performance return on assets (ROA) and return on equity (ROE) ratios. Other financial characteristics such as level of indebtedness (GR4), fixed assets turnover ratio (CSR), operating income margin (ISR), liquidity ratio (Liq), stocks (STK), debtors (Deb), firm size (Size) are in accordance with (Haniffa and Hudaib, 2006; Di Miceli da Silveira et al., 2009) The corporate governance and audit variables are manually collected from the Annual Reports of the companies. They are represented by the CEO duality (CDy), independent Board members (BoI), existence of internal audit department (EAI), independent internal audit committees (IAI) and if the firm is audited by one of the Big4 auditors (that represents the first 4 audit large companies) in accordance with studies as (Balasubramanian et al., 2009; Bello, 2011). Our data set is represented by an unbalanced panel data as per Table no.2.

As Table no.2 suggests that our dataset varies from 894 firm observation to 1086 firm observation. This is because of the lack of accessing some Annual Reports of the companies that prevented us in collecting more year observation data for our dummy variables.

Table no. 2 Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	1074	0.0715238	0.0941767	-0.2830552	0.3820774
ROE	905	0.2858975	0.321261	-1.277315	1.611582
GR4	1074	0.4669333	0.2375407	0.0777551	1.295112
CSR	1071	0.643167	0.7425013	0.0007269	5.125108
ISR	1071	1.020295	0.0339705	0.9381715	1.208305
Liq	1053	1.074252	0.7633814	0.142	4.327
STK	1047	10.40814	1.47493	1.085106	15.11992
Deb	1059	10.75236	1.513308	1.881205	14.50547
Size	1074	12.7882	1.391387	7.712307	17.04631
EAI	900	0.7744444	0.41818	0	1
CDy	901	0.0688124	0.2532755	0	1
BoI	895	0.8536313	0.3536731	0	1
IAI	894	0.5369128	0.4989147	0	1
BIG4	1086	0.6906077	0.4624561	0	1

Source: Authors calculation

We tested if there are correlation problems between our variables by employing Person correlation matrix, presented in Figure no. 1

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) ROA	1.00													
(2) ROE	0.45***	1.00												
(3) ISR	-0.02	0.01	1.00											
(4) GR4	-0.35***	0.15***	-0.06*	1.00										
(5) CSR	-0.17***	-0.13***	0.36***	-0.23***	1.00									
(6) Liq	0.25***	-0.06*	0.02	-0.51***	-0.03	1.00								
(7) STK	0.09***	0.01	-0.01	-0.04	-0.08***	-0.02	1.00							
(8) Deb	0.09***	-0.01	-0.12***	-0.06*	0.01	0.11***	0.56***	1.00						
(9) Size	0.09***	-0.05	-0.01	-0.33***	0.34***	0.15***	0.62***	0.74***	1.00					
(10) EAI	0.05	0.08**	-0.03	-0.11***	0.03	0.02	-0.01	0.06*	0.14***	1.00				
(11) CDy	-0.17***	-0.11***	0.14***	-0.04	0.07**	-0.09**	-0.09***	-0.18***	-0.23***	0.04	1.00			
(12) BoI	0.09***	0.05	-0.11***	0.04	-0.06*	0.05	0.09***	0.15***	0.19***	-0.02	-0.66***	1.00		
(13) IAI	0.08***	0.18***	-0.01	-0.01	0.12***	0.00	-0.01	0.10***	0.11***	0.57***	0.08**	-0.01	1.00	
(14) BIG4	0.18***	0.03	-0.07**	-0.21***	0.04	0.22***	0.13***	0.19***	0.29***	0.32***	-0.08**	-0.01	0.25***	1.0

*** p<0.01, ** p<0.05, * p<0.1

Fig. no. 1 Correlation Matrix
Source: Authors calculation

As Person Correlation Matrix suggests, there is no correlation problems between our variables as the larges correlation is between the variable Size and Deb of 0.74.
In order to eliminate the estimation risks, induced by the presence of outlier we used winsorize (Duru et al., 2016). We also employed additional sensitivity and robustness tests and we concluded that there is no multicollinearity issues and our data is robust. In order estimate the relation between financial characteristics of firms and particular corporate governance and audit practices, we employed Probit model in accordance with (Dopuch et al., 1987; Hosmer and Lemeshow, 2000; Groff and Valentincic 2011). Our Probit equation becomes:

$$VCGA_i(Prob. dummy\ variable = 1) = \beta_1 PrV_i + \beta_2 VFCh_i + \alpha_i + \varepsilon_i \qquad (1)$$

where:
VCGA – represents the variables regarding corporate governance and audit characteristics;
PrV – represents the variables regarding the accounting performance (ROA and ROE);
VFCh – represents the variables regarding the financial characteristics of firms;
i – represents the company;
α_i – constant;
ε_i – idiosyncratic error

Results

In our analysis, we estimated the model for every dummy variable regarding corporate governance and audit characteristics and we used cluster robust estimators. The results of our model are presented in table no. 3.

Table no. 3 Results of Probit Regression

	EAI	IAI	BoI	CDy	Big4
ROA |	-0.125	1.216	1.100	-5.354***	1.481**
	(-0.14)	(1.52)	(1.14)	(-3.93)	(1.98)
ROE |	0.463**	0.771**	-0.023	0.171	-0.034
	(2.14)	(3.35)	(-0.09)	(0.56)	(-0.19)
GR4 |	-1.350***	-0.082	1.543***	-3.563***	-0.101
	(-3.84)	(-0.26)	(3.76)	(-5.79)	(-0.34)
CSR |	-0.409**	0.159	-0.530**	0.501**	-0.162
	(-3.13)	(1.50)	(-3.24)	(2.20)	(1.58)
ISR |	-0.984	0.071	-3.558*	2.863	-3.831**
	(-0.53)	(.04)	(-1.74)	(0.98)	(2.31)
Liq |	-0.241**	-0.037	0.359**	-0.462**	0.415***
	(-2.97)	(-0.51)	(3.13)	(-2.44)	(3.97)
STK|	-0.223***	-0.101**	-0.209**	0.320**	0.042
	(-3.51)	(-2.11)	(-2.98)	(2.83)	(0.87)
Deb |	-0.169**	-0.042	-0.345***	0.535**	-0.87**
	(-2.27)	(-0.75)	(-3.58)	(3.44)	(-3.39)
Size |	0.499***	0.217**	0.812***	-1.399***	0.454***
	(4.73)	(2.73)	(6.23)	(-6.30)	(5.58)
Const	0.559	-1.568	-0.654	6.175**	0.018
	(0.28)	(-0.86)	(-0.31)	(1.88)	(0.01)
No. obs	721	718	716	722	716
LR chi2(9)	75.49	58.21	80.74	125.54	80.74
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.0970	0.0589	0.1314	0.3314	0.1314
Log likelihood	-351.279	-465.347	-266.764	-126.658	-266.764

Source: Authors calculation

Our results are consistent with (Groff and Valentincic, 2011), in which large firms that perform better in terms of ROE are more likely to have a voluntary independent internal audit department. Furthermore, our results suggest that firms form Central and Eastern Europe that have high level of indebtedness (GR4), fixed assets turnover ratio (CSR), liquidity ratio (Liq), stocks (STK), and debtors (Deb) are less likely to have an internal audit department in their structure.
Large firms with higher liquidity ratio and high level of indebtedness have a higher probability in having an independent Board. On the other hand, high fixed assets turnover ratio, stocks and debtors position firms in higher probability of having CEO duality but large firms that perform better in terms of ROA, have higher liquidity and high level of indebtedness are less likely in having CEO duality.

Large firms that perform better in terms of ROA and with higher liquidity have a higher probability in being audited by a Big4 auditor.

Conclusions

This paper investigates the corporate governance and audit practices in listed firms from Central and Eastern European countries. In order to establish the adoption, acceptance, and diffusion of corporate governance codes and audit practices, we used Probit model. By analyzing 80 firms for 10-year period, we found that firms that perform better in terms of ROE have higher probability in having an independent internal audit committee. Firms that perform better in terms of ROA present a higher probability in being audited by a Big4 auditor and are less likely in having executive dual position (CEO duality).

We consider that the separation of power between management and administration, assuring independent internal audit committee and ensuring the independence of the board of directors are elements that contribute to better operational performance of companies through efficient management and could ensure long-term development.

Our main limitation of the paper consists in the lack of accessing more data regarding the corporate governance and audit characteristics of firm that restricted us to a limited dataset. As additional data will be available, further research will be conducted.

Acknowledgements

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