ENVIRONMENTAL REPORTING AND CORPORATE GOVERANANCE FOR FTSE 100 LISTED COMPANIES

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Because environmental information reporting remains voluntary on an international scale, there are major difference in terms of quality and quantity of environmental information, reported by entities from varied sectors and countries. Within this study, I have focused on internal characteristics, consisting mainly in how the entity is managed, in order to identify the existence of certain associations between the characteristics of corporate governance and the existence of environmental reporting. The literature in the field suggests various results related to the correspondence between corporate governance characteristics and environmental reporting. Within the factors suggested by the literature are the board structure, presence of the board committee, the separation between the Chairman of the Board and the Chief Executive Officer, shareholder structure. The paper represent an empirical analyze on how corporate governance characteristics might explain the level of environmental reporting. I suggest a model comprising corporate governance characteristics like: board independence, board size, existence of a Social Responsibility Committee that could explain environmental reporting. The sample comprises 48 companies listed at London Stock Exchange FTSE 100. From FTSE 100 I select only the companies that activates in sectors of activity that may have an impact on the environment such as Aerospace & Defence, Automobiles & Parts, Beverages, Chemicals, Electricity, Food & Drug Retailers, Food Producers, Gas, Water & Multiutilities, General Industrials, Health Care Equipment & Services, Household Goods, Industrial Engineering, Mining, Oil & Gas Producers, Oil Equipment, Services & Distribution, Personal Goods, Pharmaceuticals & Biotechnology, Tobacco. My results show that, from the point of view of the London Stock Exchange FTSE 100 listed companies, the presence of an environmental committee in the board help reduce the conflict of interests between the stakeholders and the company's management regarding the disclosure of environmental information. The environmental committee monitors the company's activity regarding the impact on the environmental, bringing about increasing transparency, and independence inside the board regarding environmental aspects. For assuring a high transparency level of environmental performance within a company, the board should ensure a sufficiently large number of members able to exercise an independent reasoning in order to solve potential conflict of interest. The directors represent the interests of the stakeholders and have more influence on reporting information regarding environmental aspects.
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Introduction

During the last decade, the demand for environmental information reporting has increased dramatically within the stock listed companies (Beretta and Bozzolan, 2004). External users require relevant and credible information regarding the environmental performance of the entities (Di Piazza and Eccles, 2002). Because environmental information reporting remains voluntary on an international scale, there are major difference in terms of quality and quantity of environmental information, reported by entities from varied sectors and countries. A large number of studies can be observed in time focused on analyzing the time and space variation of the environmental reporting, emphasizing the factors which are determinant for environmental reporting (Cormier et al, 2005; Frost, 2007; Taylor and Shan, 2007; Sumiani et al, 2007). In the study conducted by Lee and Hutchinson in 2005 (Lee and Hutchinso, 2005: 86) the authors offer a current status of factors that can influence the decision to report environmental information: external factors (laws and regulations, entity's legitimacy, public pressure, public exposure), internal factors (charecteristics, cost/benefit ratio), individual factors (culture, attitude)

Within this study, I have focused on certain factors related to the entity, such as internal characteristics, consisting mainly in how the entity is managed, in order to identify the existence of certain associations between the characteristics of corporate governance and the existence of environmental reporting. Among the characteristics of corporate governance we could mention the board structure and composition, the existence of environmental committees.

Working hypothesis and Analysis of the Literature

I develop the following theoretical frameworks:

H1: The level of environmental reporting is positively influenced by the percentage of independent non-executive managers within the board of directors. The OECD principles and the majority of corporate governance codes respectively suggest the existence of both executive and non-executive managers within the board, the role thereof being the monitoring or management decisions.

The executive managers are employees of the company with a direct role in its management, while the non-executive managers do not participate directly in managing the company, having an objective and independent monitoring role on how the company is managed.

From the perspective of agency theory (Solomon, 2007: 82) the presence of independent non-executive managers in the board (board of directors) should help reduce the conflict of interests existing between the shareholders and the company's management, because their role is to independently monitor the company's activity, bringing about increasing objectivity, independence inside the board, thus leading to the minimization of agency costs. According to the OECD principles (OECD Principles, part VI) the board should be capable to objectively and independently analyze the economic operations exercised by the company. For this purpose, the board should ensure a sufficiently large number of independent members able to exercise an independent reasoning in order to solve potential conflict of interest. As independent managers should represent the interests of interested parties it is to be expected that they have more influence on reporting the environmental performance related information (Haniffa and Cooke, 2002).

Nevertheless, the specialized literature also introduces a negative perspective related to the existence of independent non-executive managers: in the event of a large board, the non-executive managers represent a powerless unjustifiable element within the structure. The supporters of this theory believe that the market wherein the company operates, has the capacity to determine a company's management to function properly, thus supporting the shareholders' interests (Solomon, 2007).

Studies suggest various results related to the correspondence between the number or percentage of independent non-executive managers and the level of voluntary reporting. Therefore, Akhtaruddin et al. (2009), Donnelly and Mulcahy (2008), Huafang and Jianguo (2007), Kelton and Yang (2008), Chen and Jaggi (2000), Bujaki and McConomy (2002) are all studies reflecting the existence of a positive correlation between the number of independent non-executive managers and the level of reporting, on the basis of empirical approaches, while Barako et al. (2006) reflects a negative association between the level of voluntary reporting and the ratio of non-executive managers.

I thus expect that a larger number or ratio of independent non-executive managers within the board would determine an increasing level of environmental reporting.

H2: The level of environmental reporting is influenced by the board size. Specialized literature believes that board size determines the efficiency and efficacy thereof (Xie et. al., 2001) because a larger board attracts more experienced individuals. A more efficient board incurs a more efficient reporting system, and a more increased level of voluntary reporting at the same time, environmental reporting included.

Nevertheless, there are studies having proven statistically that there is no relation between the board size and the level of voluntary reporting: Halme and Huse (1997), Cheng and Courtenay (2004). I believe the level of environmental reporting might be correlated with the board size.

H3: The level of environmental reporting is influenced by the existence of a safety and social responsibility committee. The existence of such a committee would lead to an increasing importance given to these particular aspects of governing system, and as a result, an increase in the information related social and environmental performance within the company.

Research Methodology

Hence, the present paper is a fundamental, applicative research leading to the proposal of a model to be tested within 48 companies listed at London Stock Exchange FTSE 100. From FTSE 100 I select only the companies that activates in sectors of activity that may have an impact on the environment such as Aerospace & Defence, Automobiles & Parts, Beverages, Chemicals, Electricity, Food & Drug Retailers, Food Producers, Gas, Water & Multiutilities, General Industrials, Health Care Equipment & Services, Household Goods, Industrial Engineering, Mining, Oil & Gas Producers, Oil Equipment, Services & Distribution, Personal Goods, Pharmaceuticals & Biotechnology, Tobacco.

The dependent variable of the study is the Environmental Reporting Index 2010 (EnvRep) which was calculated using a Disclosure Index (DI) on the following groups of information:

- d1. Non-financial information regarding environmental objectives, management, policy and other aspects which can reflect environmental performance in non-financial information. This indicator can bring value ”1” if company report this kind of information, or ”0” if company doen’t report the information.
- d2. Key Performance Indicators regarding environmental impact (water, air, soil). The indicator is “0” if company does not report such indicators or can be “1” if company reports such indicators although this indicators are not correlated with indicators stipulated in international guidelines.
- d3.Financial indicators (environmental investment, costs, provisions). Suck indicators reflects in monetary terms companies attitude regarding the environmental. The values can be “0” if company does not report this information or “1” if company report this kind of information

This method for quantifying environmental information allows integration of different types of information into one single figure comparable between companies and is not very subjective because this is not a qualitative examination which depends on the researcher point of view which is not always the same with the investor’s point of view regarding the relevance of environmental reporting.

So, our EnvRep Disclosure Index (DI) is calculated as: $EnvRep\_DI = \frac{\sum_{i=1}^{n} di}{m}$,

n – number of element disclosed, n=3
m - number of possible elements to disclose, m=3
di – group of elements disclosed

I analyzed the following independent variables that reflect the corporate governance characteristics:

- **board_no** - The size of the Board of Directors (Total number of board members);
- **env_committee** - The existence of a Environmental/Safety/Responsibility Committee (We have marked with 1 the existence of such a committee and with 0 in case it doesn't exist);
- **indep_no** - The Percentage of the Independent Nonexecutive Directors on the Board (Number of independent non-executive managers within the board divided by the total number of the board members).

Analyses and results

For determining if three can be possible correlations between the dependent variable (Environmental Reporting) and dependent variables (board_indep, board_no, env_committee) we apply the following regression model: ***F(EnvRep) = a0 + a1*board_no + a2*env_committee + a3*board_indep,*** where: a0 – constant, EnvRep – level of environmental reporting, a1, a2, a3 – equation coefficients, board_no - Board size, env_committee – existence of a Social Responsibility Committee, board_indep – percentage of the independent nonexecutive directors in the board of directors.

The regression model was analyzed using SPSS, version 17.00 and we apply the Stepwise method for determining the variable that could explain the variation of the environmental reporting in the case of FTSE 100 listed companies. The results are presented in tables above.

Table 1. Environmental reporting model summary

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
2	.712[b]	.507	.485	.10364	.046	4.173	1	45	.047	2.765

b. Predictors: env_committee, board_no

Table 2. ANOVA test

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	.497	2	.248	23.123	.000[b]
	Residual	.483	45	.011		
	Total	.980	47			

b. Predictors: env_committee, board_no

Table 3. Coefficients of the model

		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
2	(Constant)	.652	.070		9.270	.000		

Env_committe e	.187	.032	.627	5.820	.000	.944	1.059
Board_no	.013	.006	.220	2.043	.047	.944	1.059

Analysing the rezults we can notice that the existence of environmental committee and the number of the board members are the only two independent variables that explains environmental reporting variation. The model explains 54,6% from the environmental reporting variation (Sig. Coefficient is lower than 0.01, Anova test reflects F Coefficient of 27.037 and Durbin-Watson Coefficient is 2.731).

We can see that the existence of an environmental, safety of responsibility committee on the board determine companies from FTSE 100 to disclose more environmental information. Also the size of the board is another corporate governance variable that could explain environmental reporting.

Conclusions and future research

From the point of view of the London Stock Exchange FTSE 100 listed companies the presence of an environmental committee in the board help reduce the conflict of interests between the stakeholders and the company's management regarding the disclosure of environmental information. The environmental committee monitors the company's activity regarding the impact on the environmental, bringing about increasing transparency, and independence inside the board regarding environmental aspects. For assuring a high transparency level of environmental performance within a company, the board should ensure a sufficiently large number of members able to exercise an independent reasoning in order to solve potential conflict of interest. The directors represent the interests of the stakeholders and have more influence on reporting information regarding environmental aspects.

So we can consider that implementing good corporate governance practices by establishment of environmental, safety or responsibility committee that monitor the environmental impact within the company and introducing a sufficient numbers of directors can assure transparency and objectivity can solve the agency's theory conflict and determine companies to report more voluntary information regarding environmental performance and other aspect. Our theory regarding good corporate governance assure environmental performance and good environmental reporting is can be partially validated for this sample and will be tested for other samples, like S&P 500 companies and others.

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Appendix 1. Table of variables

Company	EnvRep	board_no	indep_no	env_committee
BAE SYSTEMS	0,67	9	0,56	0
ROLLS ROYCE GROUP	1	8	0,5	1
GKN	1	9	0,5	1
DIAGEO	0,67	8	0,5	0
SABMILLER	1	11	0,64	1
JOHNSON MATTHEY	1	12	0,69	1
INTERNATIONAL POWER	1	14	0,69	1
SCOTTISH & SOUTHERN ENERGY	1	11	0,83	1
MORRISON(WM.)SUPERMARKETS	1	15	0,69	1
SAINSBURY(J)	1	12	0,64	1
TESCO	0,67	8	0,63	0
ASSOCIATED BRITISH FOODS	1	12	0,56	0
UNILEVER	1	12	0,5	1
CENTRICA PLC	1	10	0,73	0
NATIONAL GRID	0,67	7	0,57	1
SEVERN TRENT	1	14	0,5	0
UNITED UTILITIES GROUP PLC	1	10	0,5	1
REXAM	0,67	10	0,45	0
SMITHS GROUP	1	14	0,73	1
SMITH & NEPHEW	0,67	9	0,45	0
RECKITT BENCKISER GROUP PLC	1	11	0,67	0
IMI	1	11	0,42	1
WEIR GROUP	1	12	0,58	1
AFRICAN BARRICK GOLD PLC	1	9	0,5	1
ANTOFAGASTA	1	11	0,55	1
BHP BILLITON	1	9	0,5	1
EURASIAN NATURAL RESOURCES CORP	1	13	0,58	1
FRESNILLO PLC	0,67	11	0,44	0
KAZAKHMYS	1	8	0,5	0
LONMIN	1	11	0,6	1
RANDGOLD RESOURCES	0,67	8	0,63	0
RIO TINTO	1	14	0,58	1
VEDANTA RESOURCES	1	15	0,57	1
XSTRATA PLC	1	13	0,69	1
BG GROUP	1	17	0,53	1
BP	1	12	0,58	1
CAIRN ENERGY PLC	1	11	0,55	1
ESSAR ENERGY PLC	1	11	0,45	1
ROYAL DUTCH SHELL	0,67	10	0,7	0
TULLOW OIL PLC	1	10	0,7	1
AMEC PLC	0,67	8	0,63	0
PETROFAC	0,67	16	0,5	0
BURBERRY GROUP	1	12	0,5	0
ASTRAZENECA PLC	1	12	0,75	1
GLAXOSMITHKLINE	1	9	0,57	1
SHIRE PLC	1	6	0,5	1
BRITISH AMERICAN TOBACCO	0,67	9	0,6	0
IMPERIAL TOBACCO GROUP	1	11	0,46	1