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**Determinants of the information disclosure on
ERM practices:
Evidence from Portugal and the United Kingdom**

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RESEARCH OBJECTIVES

Based on agency theory and legitimacy theory we try to assess if the 4 corporate governance characteristics:

- board characteristics;
- internal auditing characteristics;
- ownership structure; and
- external auditing

influence ERM disclosures

MOTIVATIONS

From one point of view:

1. The interest in risk management issues over the last decades has increased (Paape and Speklé, 2012).
2. In this wake of growing interest the ERM framework of COSO was considered the new tool to deal with the new challenges of risk management (Paape and Speklé, 2012; Lechner and Gatzert, 2018).
3. ERM differs from the TRM: integrated approach to risk management in which all risk types are address simultaneously (COSO 2004, 2017).
4. ERM main purpose: protection and maximization of shareholder value (COSO, 2004, 2017).

MOTIVATIONS

On the other hand:

1. Corporate governance goes hand in hand with ERM, mainly after the recent financial scandals (Hassan et al., 2017).
2. ERM is a component of Corporate Governance (Maingot et al., 2012).
3. ERM and Corporate Governance alignment is crucial to achieve organizational long-term goals, regarding shareholder value creation (Maingot et al., 2012).
4. Consequently, after the recent financial scandals several countries have improved their Corporate Governance practices/requirements (Courteau et al., 2017; Hassan et al., 2017).

MOTIVATIONS

Research on ERM has been focused on:

- Analysis of the degree of ERM implementation through questionnaires/interviews (Daud et al., 2010; Haron et al., 2010; Yazid et al., 2011);
- ERM implementation determinants (Beasley et al., 2005; Paape and Speklé, 2012);
- The effect of ERM implementation/quality on firm's performance and firm's value (Gordon et al., 2009; Hoyt and Liebenberg, 2011; Ping and Muthuvello, 2015; Quon et al., 2012; Callahan and Soileau, 2017; Lechner and Gatzert, 2018).

These studies are all **within-country** studies.

And literature on the **influence of CG on ERM disclosures is scant.**

MOTIVATIONS

To fill this void in the literature the present study intends to analyse:

- The influence on corporate governance mechanisms on ERM disclosures of Portuguese and UK non-financial listed companies during the period of 2006-2016.

RESEARCH DESIGN

Sample (balanced panel data):

- Portuguese sample: 26 non-financial listed companies
- UK sample: 26 non-financial listed companies

(matched by market capitalization)

Period of analysis: 2006-2016

Total sample: 52 companies and 572 firm-year observations

Dependent variable:

- A list of 103 disclosure items was built, using the eight components of ERM – integrated framework (Coso, 2004): (internal environment; definition of objectives; identification of events; risk assessment; risk response; control activities; information and communication; monitoring).

RESEARCH DESIGN

$$\mathbf{ERM}_{jt} = \frac{\sum_{i=1}^n X_{ijt}}{n}$$

Where:

X – represents the disclosure items *i* disclosed by company *y* at the year *t*, in which the codification of each of the disclosure items if equal to 1 if it is disclosed and 0 otherwise.

n – represents the maximum of disclosure items ($n \leq 103$)

The annual reports, sustainability reports and corporate governance reports were content analysed manually

Regression model:

$$\text{ERM}_{it} = \beta_0 + \sum_{i=1}^{10} \beta_i \text{Corporate Governance}_{it} + \sum_{i=11}^{15} \beta_i \text{CONTROL}_{it} + \sum_{i=16}^{19} \beta_i \text{Industry effects}_{it} + \beta_{20} \text{Country effects}_{it} + \sum_{i=21}^{30} \beta_i \text{Year effects}_{it} + \varepsilon_{it}$$

Independent variables:

- **Board characteristics:** board independence, CEO duality, gender diversity, board meetings, management compensation
- **Internal auditing characteristics:** risk committee, audit committee independence, audit committee meetings
- **External auditing:** Big4
- **Ownership structure:** percentage of share held by the main shareholder

Control variables: size, profitability, leverage, age, and internationalization level

RESULTS

Component	Item	Registered Observations	% Item	% Component
1. Internal environment	Organizational Structure	790	1.3%	7.6%
	Management Perspective and Method of Operation	327	0.6%	
	Integrity and Ethical Values	683	1.2%	
	Human Resources Policies	648	1.1%	
	Board of Directors	2,054	3.5%	
2. Objectives	Objectives	746	1.3%	1.3%
3. Event Identification	Event Identification	453	0.8%	0.8%
4. Risk Assessment	Structure, Organization and Procedures	1,746	3.0%	12.8%
	Identification and Risk Assessment Techniques	1,482	2.5%	
	Risk Policies	4,297	7.3%	
5. Risk Response	Risk Response	397	0.7%	0.7%
6. Control Activities	Control Activities	124	0.2%	0.2%
7. Information and Communication	Information and Communication	1,728	2.9%	2.9%
8. Monitoring	Monitoring	76	0.1%	0.1%
Total Items Disclosed		15,551		26.4%

RESULTS

Variables	All sample (N=572)	Portugal (N=286)	UK (N=286)	T-test	MWU (Z) test
ERM	0.26	0.22	0.31	-9.75 ***	-10.67 ***
ERM_COMP1	0.08	0.07	0.08	0.56	-0.21
ERM_COMP2	0.01	0.01	0.01	2.94 ***	-2.43 **
ERM_COMP3	0.01	0.01	0.01	2.44 **	-1.91 *
ERM_COMP4	0.13	0.14	0.12	2.64 ***	-2.29 **
ERM_COMP5	0.01	0.01	0.01	0.62	-0.02
ERM_COMP6	0	0	0	2.37 **	-1.95 *
ERM_COMP7	0.03	0.03	0.03	1.52	-1.18
ERM_COMP8	0	0	0	2.27 **	-2.46 **
BOARDIND	0.43	0.24	0.61	-21.53 ***	-16.95 ***
WOM	0.13	0.09	0.17	-9.3 ***	-9.15 ***
BOARDMEET	9.18	10.47	7.89	7.23 ***	-7.22 ***
MANAGCOMP	6.38	6.17	6.6	-16.32 ***	-14.93 ***
AUDIND	0.64	0.32	0.96	-26.51 ***	-17.94 ***
AUDMEET	4.21	3.26	5.17	-7.39 ***	-8.24 ***
%SHARE	0.3	0.45	0.14	20.4 ***	-16.46 ***
%INT	0.54	0.33	0.75	-14.47 ***	-13.85 ***
SIZE	267.1	10.49	523.72	-0.92	-0.94 ***
ROE	0.23	0.17	0.3	-7.65 ***	-7.97 ***
DEBT	0.96	1.46	0.47	8.08 ***	-8.36 ***
AGE	16.92	11.84	22.01	-5.92 ***	-5.48 ***
		%	%	%	
CEO/CHAIR	Sim	33.20%	60.80%	5.60%	
	Não	66.80%	39.20%	94.40%	
RISKCOM	Sim	18.40%	9.10%	27.60%	
	Não	81.60%	90.90%	72.40%	
BIG4	Sim	7.70%	85.00%	100.00%	
	Não	92.30%	15.00%	0.00%	

RESULTS

Years	Mean values					
	All Sample (N=572)		Portugal (N=286)		UK (N=286)	
2006	0.183		0.115		0.252	
2007	0.206		0.142		0.269	
2008	0.221		0.158		0.285	
2009	0.244		0.195		0.293	
2010	0.271		0.231		0.31	
2011	0.285		0.248		0.321	
2012	0.289		0.251		0.326	
2013	0.294		0.257		0.332	
2014	0.299		0.262		0.335	
2015	0.306		0.271		0.34	
2016	0.307		0.273		0.341	
T-test	-5.449	***	-5.045	***	-3.652	***

RESULTS

Variables	Signal	Predicted	Model 1 (N=572)		Model 2 (N=572)	
			Coefficients		Coefficients	
Intercept			-0.942	***	-0.869	***
BOARDIND	+		0.148	***	0.071	
WOM	+		-0.041		-0.015	
BOARDMEET	+		0.083	**	0.086	**
MANAGCO	?		0.234	***	0.169	***
AUDMEET	+		-0.001		---	
AUDIND	?		---		0.353	***
%SHARE	?		0.055		0.063	
CEO/CHAIR	+		-0.566	***	-0.473	***
RISKCOM	+		0.093		0.022	
BIG ^Δ	+		0.452	***	0.343	**
%INT			0.071	*	0.086	**
SIZE			-0.058		-0.061	
ROE			0.18	***	0.187	***
DEBT			0.008		0.01	
AGE			-0.045		-0.05	
Industry effects			Included		Included	
Country effects			Included		Included	
Years effects			Included		Included	
Model fit:						
R ²			0.521		0.536	
R ² adjusted			0.496		0.511	
F statistic			20.363		21.554	
Durbin -Watson			1.988		1.916	
Max. VIF			2.555		2.7	

White Heteroskedasticity-Consistent Standard Errors & Covariance

RESULTS

To control potential endogeneity issues, we have re-run our models using:

1. the fixed effects regression model; and
2. The independent and control lagged variables

Results remained the same.

CONCLUSIONS

1. Considering the ERM integrated framework from COSO (2004), companies present very low levels of ERM disclosure.
2. The component with higher level of disclosure was “risk assessment”.
3. On average UK companies show higher levels of ERM disclosure compared to Portuguese companies.

CONCLUSIONS

1. The number of independent directors in the board and in the audit committees, the number of board meetings, management compensation and the quality of external auditing promote ERM disclosures.
2. The fact that CEO is different from the chairman also promotes ERM disclosures.
3. It seems that gender diversity, the existence of a risk committee and ownership structure do not drive ERM disclosures.

Thank you!