

# BOARD INDEPENDENCE AND VOLUNTARY FINANCIAL DISCLOSURE: THE MODERATING ROLE OF OWNERSHIP STRUCTURE

Luigi Lepore <sup>\*</sup>, Sabrina Pisano <sup>\*</sup>,  
Gabriella D'Amore <sup>\*</sup>, Carmela Di Guida <sup>\*\*</sup>

<sup>\*</sup> University of Naples "Parthenope", Italy

<sup>\*\*</sup> University of Campobasso, Italy



**How to cite:** Lepore, L., Pisano, S., D'Amore, G., & Di Guida, C. (2019). Board independence and voluntary financial disclosure: The moderating role of ownership structure. *New Challenges in Corporate Governance: Theory and Practice*, 303-319.  
[https://doi.org/10.22495/ncpr\\_42](https://doi.org/10.22495/ncpr_42)

Copyright © 2019 The Authors  
This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).  
<https://creativecommons.org/licenses/by/4.0/>

**Received:** 17.07.2019  
**Accepted:** 26.07.2019  
**DOI:** 10.22495/ncpr\_42  
**Keywords:** Voluntary Disclosure, Board Independence, Ownership concentration  
**JEL Classification:** M400, M480

---

## Abstract

Voluntary disclosure and corporate governance variables are considered important mechanisms for the reduction of the information asymmetries and conflicts of interest potentially arising between competing parties of the firms. This paper aims at investigating the relationship between board independence and quality of voluntary financial disclosure and how previous relationship is moderated by the level of ownership concentration. The analysis has been conducted on a sample of Italian non-financial listed companies and the results show that there is a significant positive relationship between board independence and the quality of voluntary financial disclosure. Moreover, our findings reveal that ownership concentration plays a relevant moderating role in that relationship, highlighting the necessity to consider the interaction effects of different governance mechanisms when studying corporate governance effectiveness.

## **1. INTRODUCTION**

Voluntary disclosure is an important means for management to communicate its activities and firm performance to outside investors, reducing the information asymmetries between competing parties (Healy & Palepu, 2001) and improving long-term performance (Zattoni et al., 2017; Bushman & Smith, 2001).

Empirical research on the determinants of voluntary disclosure has investigated the impact of both firm specific characteristics and corporate governance variables (Chau & Gray, 2010). Our paper contributes to the second stream of research, investigating the role played by board independence on the quality of voluntary disclosure.

Scholars emphasized the crucial importance of adopting an independent board of directors (Bell et al., 2012). Theoretical and empirical research unanimously highlighted that boards with a majority of independent directors are crucial both for preventing expropriating behavior by top management and controlling shareholders and for participating in the strategy formation and execution (Hillman & Dalziel, 2003; Zattoni & Cuomo, 2010).

We analyzed the financial information voluntarily released by companies, because this type of data has decision relevance to investors. Differently from previous studies, we measured the quality of voluntary financial disclosure released by companies, rather than exclusively focused on the quantity (Beattie et al., 2004).

Moreover, we investigated how the relationship between board independence and the quality of voluntary financial disclosure is moderated by ownership concentration. Interacting with other corporate governance mechanisms, ownership concentration can influence corporate governance effectiveness in protecting shareholder rights (Demsetz & Lehn, 1985; Shleifer & Vishny, 1997).

We conducted our analysis on a sample of Italian non-financial listed companies and found that there is a positive relationship between board independence and quality of voluntary financial disclosure. Moreover, ownership concentration plays a relevant moderating role in previous relationship, highlighting the necessity to consider the interaction effects of different governance mechanisms when studying corporate governance effectiveness.

The remainder of the paper is organized as follows: the next section reviews the literature and develops the hypotheses. Section 3 describes the sample selection process and research design. Section 4 reports the results. Section 5 reports the discussion and conclusions.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1. Board independence and voluntary disclosure**

The relationship between corporate governance and disclosure has always been a phenomenon of interest for scholars and regulators

(Bushman & Smith, 2001). Among all the mechanisms used to reduce information asymmetries, literature focused particular attention to voluntary disclosure, using the agency theory (Jensen & Meckling, 1976). Many scholars focus their research interests on the identification of the determinants of voluntary disclosure (Healy & Palepu, 2001; Li et al., 2008a).

Most research investigated the role played by independent directors. The effectiveness of the board of directors as control mechanism depends on its degree of independence. If board members are also managers of the company, the probability of collusion and the distraction of shareholders' values are behind the corner (Fama & Jensen, 1983). A higher proportion of independent directors would result in more effective monitoring of boards and limit the opportunistic behaviour by top management and/or dominant shareholders (Fama, 1980; Hillman & Dalziel, 2003). Independent directors have reputational concerns that could induce them to act in the interest of all stakeholders, rather than exclusively operating in the shareholders' interests (Armstrong et al., 2010; Lim et al., 2007). The monitoring of corporate boards by independent directors will bring corporate boards to become more responsive to outside investors, among others enhancing the quality of disclosures (Chau & Gray, 2010; Forker, 1992; Ho & Wong, 2001).

Empirical research that has investigated the relationship between board independence and voluntary disclosure found mixed results. Most studies found a positive relationship (Akhtarruddin et al., 2009; Cuadrado-Ballesteros et al., 2015; Garcia-Sanchez et al., 2014; Jaggi et al., 2018; Karamanou & Vafeas, 2005; Liao et al., 2015; Pavlopoulos et al., 2017; Yunus et al., 2016), supporting one of the major role of the board: its control functions (Fama, 1980). Other studies (Gul & Leung, 2004; Haniffa & Cooke, 2005; Tejedo-Romero et al., 2017) found a negative impact, suggesting the presence of a substitution hypothesis between these mechanisms (Williamson, 1983). Finally, there are authors (Bueno et al., 2018; Leung & Horwitz, 2004; Michelin et al., 2015; Miras-Rodriguez et al., 2019; Prado-Lorenzo & Garcia-Sanchez, 2010; Prado-Lorenzo et al., 2009; Wan-Hussin, 2009), that have not detected any influence. Contrasting evidences could be due to the variety of the institutional context analysed, the measure of independence used or the content of disclosure investigated. Regarding the content of disclosure investigated, previous studies investigated different types of information. This is because the influence of corporate governance variables on voluntary disclosure may vary by information type. To the best of our knowledge, few studies investigated financial information, although this type of data has decision relevance to investors. For this reason, this paper focuses on financial information voluntarily provided by companies.

In addition to previous consideration, most studies developed disclosure index aiming at measuring the quantity of information. However, these indices are unidimensional and not able to evaluate all

the dimensions of disclosure quality (Beattie et al., 2004). For this reason, the measurement of the quality of disclosure is recognized as a relevant question that is still open (Cole & Jones, 2005) and the need to develop more effective measures for disclosure quality is emphasized in literature (Core, 2001).

In this study we overcome these limits by investigating the effect of board independence on voluntary financial disclosure, developing a disclosure index that exclusively consider financial information and measure the quality of data released.

We hypothesized that:

*H1:* The proportion of independent directors to the total directors on the board is positively associated with the quality of voluntary financial disclosure.

## **2.2. The moderating role of ownership structure**

Research has often used agency theory to investigate how ownership structure affects the level of voluntary disclosure in order to mitigate the agency problems (Oliveira et al., 2006; Barako, 2007; Li & Qi, 2008; Jiang & Habib, 2009; Samaha et al., 2012). However, the importance of the agency problem is not the same in concentrated and widely held firms. The potential for conflicts between principals and agents is greater for firms characterized by high ownership diffusion (Fama & Jensen, 1983). Consequently, the amount of information disclosed by companies to mitigate such conflicts is likely to be greater in widely held firms (Raffournier, 1995), because more monitoring is required. Several studies found a positive relation between ownership concentration and voluntary disclosure (Hossain et al., 1994; Haniffa & Cooke, 2002; Huafang & Jianguo, 2007), supporting the monitoring hypothesis.

Firms with high levels of ownership concentration are characterized by less information asymmetry between management and shareholders (Cormier et al., 2005). In these contexts, voluntary disclosure could fail as a good governance mechanism, because dominant blockholders might manipulate the extent of disclosures to maximize private benefits at the expense of minority shareholders (expropriation hypothesis). In these companies, there is no concrete separation between ownership and control and agency conflicts are those between majority and minority shareholders (Maury & Pajuste, 2005). In such contexts, research usually found a negative relationship between ownership concentration and voluntary disclosure (Alsaeed, 2006; Patelli & Prencipe, 2007; Pisano et al., 2017).

There are also many other empirical studies failing to find a statistically significant relationship between ownership concentration and voluntary disclosure (Mak, 1991; Craswell & Taylor, 1992; Eng & Mak, 2003; Donnelly & Mulcahy, 2008).

On the basis of previous considerations, it emerges that the influence of board independence on voluntary disclosure is not the same in every context where companies operate. In companies characterized by

high levels of ownership concentration, independent directors should monitor the opportunistic behaviour of dominant shareholders, rather than top management, because in these firms the top management is a direct emanation of the controlling shareholder (Connelly et al., 2010). In these contexts, the board of directors is a direct expression or strongly depends on the dominant shareholder who holds de facto the decision-making power. As a result, the monitoring function exercised by independent directors on dominant shareholders, as well as on management, loses its effectiveness.

In companies with high ownership diffusion, there is a concrete separation between ownership and control of the firm and the top management effectively exercises a concrete decision-making power. In these contexts, since there is no dominant shareholder that can effectively influence it, the decision-making power is in the hands of the board of directors. Therefore, independent directors, if their number is consistent, could exercise the function of monitoring more effectively, preventing the management opportunistic behaviours.

We tested the following hypothesis:

*H<sub>2</sub>*: The relationship between board independence and the quality of voluntary financial disclosure is moderated by the level of ownership concentration.

### **3. RESEARCH DESIGN AND METHODOLOGY**

#### **3.1. Sample selection and data source**

The sample consisted of 235 Italian companies chosen from non-financial firms listed on the Italian stock exchanges on December 31, 2016. Bank and insurance companies were excluded because they drew up their financial statements according to different regulations. We gathered both accounting and financial data and information on ownership structures from the Bureau Van Dijk Orbis database. We obtained data on board characteristics from the corporate governance report. Our original sample was composed of all non-financial listed firms (263 companies). We excluded 28 companies because they did not provide information on ownership structures and accounting and financial data.

#### **3.2. Variables**

##### *3.2.1. Dependent variable*

Our dependent variable is an unweighted index, named *Fin\_Vol\_Disc* that measures the quality of voluntary financial information disclosed by sampled companies in their annual report through different Financial Key Performance Indicators (FKPIs), in order to communicate to stakeholders their level of stability, solvency, liquidity and profitability.

We measured *Fin\_Vol\_Disc* in terms of both quantity of information released and attributes of the data provided. We measured the quantity

in terms of the number of FKPIs released. To select the FKPIs we referred to the guidance issued by the Italian professional standards setter to help firms in drawing up their management discussion and analysis. We identified 25 items. With respect to the attributes, we referred to recommendation CESR/05-178b. According to previous recommendation, in addition to the actual value, for each FKPI companies should provide: 1) the value assumed in the past year, 2) the prevision for the future year, 3) the average value the FKPI has in the sector where each company operates, 4) a narrative description of the FKPI, 5) a graph or a table. Thus, for each FKPI we computed the number of attributes disclosed by the firm: if the firm provided no information on the attributes we assigned the score of 0; if the firm released all the attributes, we assigned the score of 5.

The *Fin\_Vol\_Disc* assigned to firm  $i$  is equal to the sum of FKPIs disclosed (*Quantity<sub>i</sub>*) and the attributes provided for each FKPI by company  $i$  (*Attributes<sub>i</sub>*).

$$Fin\_Vol\_Disc_i = Quantity_i + Attributes_i \quad (1)$$

After identifying the FKPIs and their attributes, we content-analyzed the annual reports of the year 2016, and we collected data on each FKPI. In particular, firstly we measured the quantity of FKPIs released by each company (*Quantity*). The Quantity indicator can range from 0 (no disclosure of FKPIs) to 25 (the company disclosed all the FKPIs identified). Then, for each FKPI released, we gathered five attributes, assigning a score of 1 to each FKPI if the company disclose that attribute and a score of 0 otherwise. In this way, the minimum and maximum value for each FKPI were respectively 0 (no information disclosed), and 5 (all the attributes disclosed). Summing all the values calculated for each of the 25 FKPIs (*Quantity* and *Attributes*), we obtained the final value of our *Fin\_Vol\_Disc* index, that potentially ranges from 0 to 150 for each firm.

### 3.2.2. Independent and moderating variables

Our independent variable is *BoInd*, measured as the percentage of independent directors sitting on the board (Chen & Jaggi, 2000). Our moderating variable is *OwnConc*, measured using the Herfindhal index concentration (sum of the squares of the percentage of shares held by the three largest shareholders) in order to compute the concentration of voting rights held by the largest shareholders (Li et al., 2008b). Higher values of *OwnConc* correspond to higher concentrations of power in the hands of the largest shareholders. We included the interaction term (*BoInd\*OwnConc*) to analyze the presence of interaction effects between two governance mechanisms.

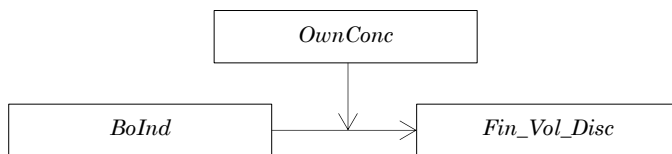
### 3.2.3. *Control variables*

We inserted in the analysis some variables that can better describe the board structure and processes. We included *BoardSize* (number of board members) and expected to find a positive association with voluntary disclosure, considering that more directors can play their monitoring role better (Cheng & Courtenay, 2006). We included *RoleDual* (1 if the firm's chairman of the board is also the CEO and 0 otherwise) and predicted a negative relation with disclosure, assuming that this power concentration reduces the monitoring role played by the board of directors (Pisano et al., 2015). We included *ExecDirect* (the percentage of executive directors) and predicted that it is negatively related to disclosure, assuming that the power of executive directors reduces the monitoring role potentially played by the independent members (Cheng & Courtenay, 2006). We inserted *BoardMeetings* (the number of board meetings during the year) and expected to find a positive association with voluntary disclosure, hypothesizing that the directors play their monitoring role better if they meet each other frequently (Adams & Ferreira, 2009; Rossi et al., 2014). Finally, we included *Big4* and predicted a positive relation with disclosure, assuming that a Big 4 audit company can stimulate more accountable behavior of the company (Barako et al., 2006).

The second category of control variables is related to firm-specific characteristics affecting voluntary disclosure (Anderson et al., 2004; Ashbaugh-Skaife et al., 2006; Sengupta, 1998). We included *Size* (natural logarithm of total assets) and predicted to find a positive association with the disclosure level: larger firms are expected to provide more information considering that they support lower average costs of collecting and disseminating information (Cerbioni & Parbonetti, 2007). We inserted *Leverage* (long-term debt divided by total assets) and predicted to have a positive association with disclosure because firms with higher leverage have more incentive to disclose information voluntarily because they hope to reduce agency costs with creditors (Jensen & Meckling, 1976). We included *Profit* (natural logarithm of market-based Tobin's Q) and predicted to have a positive relationship with our dependent variable because companies characterized by high profitability could have incentives to make more disclosures (Raffournier, 1995) to underscore their good performance to investors. We inserted *GS* (growth rate of sales) and expected to find a positive relationship with voluntary disclosure, because faster growing companies are expected to use voluntary disclosure to reduce the information asymmetry between managers and investors (Cerbioni & Parbonetti, 2007).

### 3.3. Empirical model

The following figure shows the research model we used.



To test the hypotheses, we developed the following OLS regression model:

$$\begin{aligned}
 Fin_{Vol_{Disc}} = & \alpha + \beta_1 BoInd + \beta_2 OwnConc + \beta_3 BoInd * OwnConc \\
 & + \beta_4 RoleDual + \beta_5 BoardMeetings + \beta_6 BoSize \\
 & + \beta_7 ExecDirect + \beta_8 Big4 + \beta_9 Size + \beta_{10} Lev \\
 & + \beta_{11} Profit + \beta_{12} GS + \varepsilon
 \end{aligned} \tag{2}$$

## 4. EMPIRICAL RESULTS

### 4.1. Descriptive statistics and correlations

The sampled companies disclosed, on average, 21.8 FKPIs (Table 1). Thus, the level of voluntary financial disclosure is relatively low. Companies mainly disclose information about the actual score of FKPIs (*Quantity*) and the score assumed in the past year (*Attribute 1*). Information about future target (*Attribute 2*) and sector value (*Attribute 3*) are very rare. Sometimes, companies disclose a narrative description/comment of the value recorded by the FKPI (*Attribute 4*) and report a graph or a table (*Attribute 5*).

**Table 1.** Descriptive statistics of variables

<i>Variable</i>	<i>Obs</i>	<i>Mean</i>	<i>Std.Dev</i>	<i>Min</i>	<i>Max</i>
<i>Fin_Vol_Disc</i>	235	21.88085	8.418707	4	56
<i>BoInd</i>	235	.4547099	.1740281	0	.8181818
<i>RoleDual</i>	235	.3489362	.4776511	0	1
<i>BoardMeetings</i>	235	8.72766	4.358198	1	39
<i>BoSize</i>	235	8.702128	2.893515	2	17
<i>ExecDirect</i>	235	.3003434	.1825543	0	1
<i>Big4</i>	235	.7617021	.4269516	0	1
<i>OwnConc</i>	235	.3245166	.1908059	.0002886	.8879613
<i>Profit</i>	235	.7968358	1.062336	.0034102	11.38
<i>Size</i>	235	19.46157	2.133745	14.11413	25.77053
<i>Lev</i>	235	.1565166	.1383878	0	.6127172
<i>GS</i>	235	.2794492	2.235408	-.994406	32.97343
<i>BoInd_X_OwnConc</i>	235	-.6371882	.5050923	-2.871.275	0

*BoInd* varies widely across our sample from 0 to 81.81%, the mean is 45.47%. In terms of number of independent directors, this means that board independence varies from no one independent directors sitting on the board to 11. The average number of directors on the board is 8.7. The average value of *ExecDirect* is 30%. On average, in the 35% of the



companies there is coincidence between the CEO and the chairman of the board. The average number of *BoardMeetings* is 8.7. A Big 4 audit company is present in the 76.17% of the companies. The *OwnConc* of the sample companies is relatively high (average value 0.32).

Table in Appendix provides the correlation findings. *Fin\_Vol\_Disc* exhibits significant positive correlations with board independence, the percentage of executive directors and firm performance. Instead, it presents a negative correlation with board size.

## 4.2. Regression analysis

Table 2 shows our regressions results. The explanatory power of the regressions varied from 14.4 to 19.4 percent.

**Table 2.** Regressions

<i>Variable</i>	<i>(1) Control variables only</i>	<i>(2) Direct effect of BoInd</i>	<i>(3) Interaction effects between OwnConc and BoInd</i>
<i>BoInd</i>		8.206424** 2,31	18.847279*** 2,94
<i>OwnConc</i>			11.127235 1.18
<i>BoInd*OwnConc</i>			-35.184755* -1.94
<i>RoleDual</i>	-0.1162772 -0.09	.0395836 0.03	0.21660424 0.18
<i>Meetings</i>	-0.07276061 -0.54	-1.1376546 -1.01	-0.1376785 -1.02
<i>BoSize</i>	-0.35221534 -1.43	-.2518781 -1.01	-0.28795782 -1.16
<i>ExecDirect</i>	5.7700468* 1.70	7.602762** 2.20	6.1510875* 1.79
<i>Big4</i>	-0.50753216 -0.33	-.8278428 -0.55	-0.76285963 -0.51
<i>Profit</i>	1.3876494** 2.57	1.387971*** 2.60	1.4338219*** 2.71
<i>Size</i>	0.05467713 0.14	.0448793 0.12	-0.15831607 -0.42
<i>Leverage</i>	3.1729885 0.67	2.292004 0.49	2.2196463 0.48
<i>GS</i>	0.15211354 0.60	.1781508 0.71	0.1964114 0.79
<i>_cons</i>	22.438944** 2.49	17.00388* 1.84	18.023416* 1.9
<i>N</i>	235	235	235
<i>F-statistic</i>	1.47	1.66	1.84
<i>Probability &gt; F</i>	0.0790	0.0307	0.0093
<i>r2</i>	0.14402459	0.1653	0.19391313

Note: Legend: \*  $p < .1$ ; \*\*  $p < .05$ ; \*\*\*  $p < .01$

Findings of Model 2 show a significant positive relationship between board independence and *Fin\_Vol\_Disc* ( $\beta = 8.206$ ,  $p < 0.05$ ). Thus, board

independence acts as a good corporate governance mechanism stimulating voluntary disclosure. These results are in line with the findings of previous studies (Chau & Gray, 2010), supporting the control function of independent directors (Fama, 1980).

In Regression 3 the interaction term *BoInd\*OwnConc* is statistically significant, indicating that the positive relation between board independence and *Fin\_Vol\_Disc* is stronger when there is a lower level of *OwnConc*. Thus, a more equal distribution of share and voting rights among shareholders could increase the positive effect of board independence on the level of external accountability and transparency of the company. The result is coherent with the assumption that companies presenting more concentrated ownership tend to disclose lower levels of information, because largest shareholder have private channels to obtain this data (Cormier et al., 2005). Our result is in line with the findings of previous studies (Chau & Gray, 2002; Brammer & Pavelin, 2006; Lan et al., 2013), that supported the expropriation hypothesis.

## 5. DISCUSSIONS AND CONCLUDING REMARKS

This paper analyses the determinants of voluntary financial disclosure, considering the "governance role of financial accounting information" (Bushman & Smith, 2001). Financial information plays several relevant functions that contribute to govern the company. Firstly, it serves to discipline managers on project selection, giving to the board of directors important information feed-back to exercise its monitoring function (Bushman & Smith, 2001). Furthermore, financial information also supports the monitoring function played by stock markets, increasing their efficiency and reducing uncertainty (Scharfstein, 1988; Stein, 1988). Moreover, financial information is probably a prerequisite for the existence of an efficient stock market, stimulating the action of analysts (Black, 2000). Finally, financial disclosure reduces the uncertainty regarding free riding opportunities by the management (Bushman & Smith, 2001). In the light of these considerations, our results could be interpreted considering that the higher is the board independence, the higher is the quality of voluntary financial disclosure and, consequently, both board of directors and stock markets can better exercise their monitoring and governance functions.

Our study has considered board independence, voluntary disclosure and ownership concentration as mechanisms of corporate governance. Literature has almost unanimously recognized the contribution that independent directors and disclosure produce for the reduction of information asymmetries (Zattoni et al., 2017), however the influence of board independence on voluntary disclosure is not the same in company widely owned or concentrated. In fact, in corporations characterized by high levels of ownership concentration, the monitoring function exercised by independent directors on the management could lose its effectiveness, probably because they lack the necessary power to exercise this monitoring function. In companies whose equity is dispersed, there is a

real separation between ownership and control, and independent directors could exercise the function of board monitoring more effectively.

Our results have highlighted an important interaction between ownership concentration and board independence, emphasizing that they could serve as substitute mechanisms of corporate governance.

In particular, our findings showed that the positive relation between board independence and the voluntary disclosure is stronger when there is a lower level of ownership concentration. In other words, the result is coherent with the assumption that companies presenting more concentrated ownership tend to disclose lower levels of information, because largest shareholder have private channels to obtain this data (Cormier et al., 2005) because the independent directors often lack the necessary power to stimulate the management to disclose higher quality financial disclosure and to effectively monitor the dominant shareholders.

This study contributes to the academic literature in two ways. First, differently from many previous studies, we measure the voluntary financial disclosure in terms of quality of information released, rather than exclusively focusing on the quantity. Our unweighted disclosure index could be used in future studies. Second, our study considers the relation between board independence and voluntary financial disclosure as mechanisms of corporate governance, without underestimating the role of ownership concentration in that relationship, where literature has often investigated their effectiveness without considering the specific characteristics companies have in term of the ownership structure.

Our results have implications for various actors. The reluctance of the Italian companies to disclose quality information acts as a force opposing the growing pressure for internationalization and global transparency. This behaviour could discourage potential investors when undertaking investment decisions. Thus, this result could be useful for management and owners of the company in defining the financial source strategy. Furthermore, these results should be considered by regulators at both the national and international levels in their process of determining policy for accounting standards. Moreover, these findings could be useful for legislators, that should not underestimate the role of ownership concentration and its interaction with other corporate governance mechanisms in defining the characteristics of the control mechanisms to implement in the company, because corporate governance are costly initiative.

However, this study has some limitations. The sample only includes companies listed in Italy in 2016, so the results may not be generalized to companies listed in other countries. Future studies need to analyse a wider context, including other countries and a bigger period, which may improve the generalizability of the results. In addition, an interesting study would be to analyse as dependant variable the level of both voluntary financial and non-financial disclosure provided via traditional media (annual reports) or by new social media or websites. The

comparison could be useful to identify possible differences or similarities and understand the reasons behind them.

## REFERENCES

1. Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, *94*(2), 291-309. <https://doi.org/10.1016/j.jfineco.2008.10.007>
2. Akhtaruddin, M., Hossain, M. A., Hossain, M., & Yao, L. (2009). Corporate governance and voluntary disclosure in corporate annual reports of Malaysian listed firms. *Journal of Applied Management Accounting Research*, *7*(1), 1-20.
3. Alsaeed, K. (2006). The association between firm-specific characteristics and disclosure: The case of Saudi Arabia. *Managerial Auditing Journal*, *21*(5), 476-496. <https://doi.org/10.1108/02686900610667256>
4. Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics*, *37*(3), 315-342. <https://doi.org/10.1016/j.jacceco.2004.01.004>
5. Armstrong, C. S., Guay, W. R., & Weber, J. P. (2010). The role of information and financial reporting in corporate governance and debt contracting. *Journal of Accounting and Economics*, *50*(2-3), 179-234. <https://doi.org/10.1016/j.jacceco.2010.10.001>
6. Ashbaugh-Skaife, H., Collins, D. W., & LaFond, R. (2006). The effects of corporate governance on firms' credit rating. *Journal of Accounting and Economics*, *42*(1-2), 203-243. <https://doi.org/10.1016/j.jacceco.2006.02.003>
7. Barako, D. G. (2007). Determinants of voluntary disclosures in Kenyan companies annual reports. *African Journal of Business Management*, *1*(5), 113-128.
8. Barako, D. G., Hancock, P., & Izan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An international review*, *14*(2), 107-125. <https://doi.org/10.1111/j.1467-8683.2006.00491.x>
9. Beattie, V., McInnes, B., & Fearnley, S. (2004). A methodology for analysing and evaluating narratives in annual reports: A comprehensive descriptive profile and metrics for disclosure quality attributes. *Accounting Forum*, *28*(3), 205-236. <https://doi.org/10.1016/j.acfor.2004.07.001>
10. Bell, R. G., Moore, C., & Filatotchev, I. (2012). Strategic and institutional effects on foreign IPO performance: Examining the impact of country of origin, corporate governance, and host country effects. *Journal of Business Venturing*, *27*(2), 197-216. <https://doi.org/10.1016/j.jbusvent.2010.11.001>
11. Black, B. S. (2001). The legal and institutional preconditions for strong stock markets. *UCLA Law Review*, *48*, 781-855.
12. Brammer, S., & Pavelin, S. (2006). Voluntary environmental disclosures by large UK companies. *Journal of Business Finance & Accounting*, *33*(7-8), 1168-1188. <https://doi.org/10.1111/j.1468-5957.2006.00598.x>
13. Bueno, G., Marcon, R., Pruner-da-Silva, A. L., & Ribeiro, F. (2018). The role of the board in voluntary disclosure. *Corporate Governance: The International Journal of Business in Society*, *18*(5), 886-910. <https://doi.org/10.1108/CG-09-2017-0205>
14. Bushman, R. M., & Smith, A. J. (2001). Financial accounting information and corporate governance. *Journal of Accounting and Economics*, *32*(1-3), 237-333. [https://doi.org/10.1016/S0165-4101\(01\)00027-1](https://doi.org/10.1016/S0165-4101(01)00027-1)
15. Cerbioni, F., & Parbonetti, A. (2007). Exploring the effects of corporate governance on intellectual capital disclosure: An analysis of European

- biotechnology companies. *European Accounting Review*, 16(4), 791-826. <https://doi.org/10.1080/09638180701707011>
16. Chau, G. K., & Gray, S. J. (2002). Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. *The International Journal of Accounting*, 37(2), 247-265. [https://doi.org/10.1016/S0020-7063\(02\)00153-X](https://doi.org/10.1016/S0020-7063(02)00153-X)
  17. Chau, G., & Gray, S. J. (2010). Family ownership, board independence and voluntary disclosure: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation*, 19(2), 93-109. <https://doi.org/10.1016/j.intaccudtax.2010.07.002>
  18. Chen, C. J. P., & Jaggi, B. (2000). Association between independent non-executive directors, family control and financial disclosures in Hong Kong. *Journal of Accounting and Public Policy*, 19(4), 285-310. [https://doi.org/10.1016/S0278-4254\(00\)00015-6](https://doi.org/10.1016/S0278-4254(00)00015-6)
  19. Cheng, E. C., & Courtenay, S. M. (2006). Board composition, regulatory regime and voluntary disclosure. *The International Journal of Accounting*, 41(3), 262-289. <https://doi.org/10.1016/j.intacc.2006.07.001>
  20. Cole, C. J., & Jones, C. L. (2005). Management discussion and analysis: A review and implications for future research. *Journal of Accounting Literature*, 24, 135-174.
  21. Connelly, B. L., Hoskisson, R. E., Tihanyi, L., & Certo, S. T. (2010). Ownership as a form of corporate governance. *Journal of Management Studies*, 47(8), 1561-1589. <https://doi.org/10.1111/j.1467-6486.2010.00929.x>
  22. Core, J. E. (2001). A review of the empirical disclosure literature: Discussion. *Journal of Accounting and Economics*, 31(1-3), 441-456. [https://doi.org/10.1016/S0165-4101\(01\)00036-2](https://doi.org/10.1016/S0165-4101(01)00036-2)
  23. Cormier, D., Magnan, M., & Van Velthoven, B. (2005). Environmental disclosure quality in large German companies: Economic incentives, public pressures or institutional conditions? *European Accounting Review*, 14(1), 3-39. <https://doi.org/10.1080/0963818042000339617>
  24. Craswell, A. T., & Taylor, S. L. (1992). Discretionary disclosure of reserves by oil and gas companies: An economic analysis. *Journal of Business Finance and Accounting*, 19(2), 295-308. <https://doi.org/10.1111/j.1468-5957.1992.tb00626.x>
  25. Cuadrado-Ballesteros, B., Rodríguez-Ariza, L., & García-Sánchez, I. M. (2015). The role of independent directors at family firms in relation to corporate social responsibility disclosures. *International Business Review*, 24(5), 890-901. <https://doi.org/10.1016/j.ibusrev.2015.04.002>
  26. Demsetz, H., & Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy*, 93(6), 1155-1177. <https://doi.org/10.1086/261354>
  27. Donnelly, R., & Mulcahy, M. (2008). Board structure, ownership, and voluntary disclosure in Ireland. *Corporate Governance: An International Review*, 16(5), 416-429. <https://doi.org/10.1111/j.1467-8683.2008.00692.x>
  28. Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy*, 22(4), 325-345. [https://doi.org/10.1016/S0278-4254\(03\)00037-1](https://doi.org/10.1016/S0278-4254(03)00037-1)
  29. Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of political economy*, 88(2), 288-307. <https://doi.org/10.1086/260866>
  30. Fama, E., & Jensen, M. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26(2), 301-325. <https://doi.org/10.1086/467037>
  31. Forker, J. J. (1992). Corporate governance and disclosure quality. *Accounting and Business Research*, 22(86), 111-124. <https://doi.org/10.1080/00014788.1992.9729426>

32. Garcia-Sanchez, I. M., Cuadrado-Ballesteros, B., & Sepulveda, C. (2014). Does media pressure moderate CSR disclosures by external directors? *Management Decision*, 52(6), 1014-1045. <https://doi.org/10.1108/MD-09-2013-0446>
33. Gul, F. A., & Leung, S. (2004). Board leadership, outside directors' expertise and voluntary corporate disclosures. *Journal of Accounting and Public Policy*, 23(5), 351-379. <https://doi.org/10.1016/j.jaccpubpol.2004.07.001>
34. Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, 38(3), 317-349. <https://doi.org/10.1111/1467-6281.00112>
35. Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of accounting and public policy*, 24(5), 391-430. <https://doi.org/10.1016/j.jaccpubpol.2005.06.001>
36. Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of accounting and economics*, 31(1-3), 405-440. [https://doi.org/10.1016/S0165-4101\(01\)00018-0](https://doi.org/10.1016/S0165-4101(01)00018-0)
37. Hillman, A., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review*, 28(3), 383-396. <https://doi.org/10.5465/amr.2003.10196729>
38. Ho, S. S. M., & Wong, K. S. (2001). A study of the relationship between corporate governance structures and the extent of voluntary disclosure. *Journal of International Accounting, Auditing & taxation*, 10(2), 139-156. [https://doi.org/10.1016/S1061-9518\(01\)00041-6](https://doi.org/10.1016/S1061-9518(01)00041-6)
39. Huafang, X., & Jianguo, Y. (2007). Ownership structure, board composition and corporate voluntary disclosure: Evidence from listed companies in China. *Managerial Auditing Journal*, 22(6), 604-619. <https://doi.org/10.1108/02686900710759406>
40. Jaggi, B., Allini, A., Macchioni, R., & Zagaria, C. (2018). The factors motivating voluntary disclosure of carbon information: Evidence based on Italian listed companies. *Organization & Environment*, 31(2), 178-202. <https://doi.org/10.1177/1086026617705282>
41. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
42. Jiang, H., & Habib, A. (2009). The impact of different types of ownership concentration on annual report voluntary disclosures in New Zealand. *Accounting Research Journal*, 22(3), 275-304. <https://doi.org/10.1108/10309610911005590>
43. Karamanou, I., & Vafeas, N. (2005). The association between corporate boards, audit committees, and management earnings forecasts: An empirical analysis. *Journal of Accounting research*, 43(3), 453-486. <https://doi.org/10.1111/j.1475-679X.2005.00177.x>
44. Lan, Y., Wang, L., & Zhang, X. (2013). Determinants and features of voluntary disclosure in the Chinese stock market. *China Journal of Accounting Research*, 6(4), 265-285. <https://doi.org/10.1016/j.cjar.2013.04.001>
45. Lepore, L., Paolone, F., Pisano, S., & Alvino, F. (2017). A cross-country comparison of the relationship between ownership concentration and firm performance: Does judicial system efficiency matter? *Corporate Governance: The International Journal of Business in Society*, 17(2), 321-340. <https://doi.org/10.1108/CG-03-2016-0049>
46. Leung, S., & Horwitz, B. (2004). Director ownership and voluntary segment disclosure: Hong Kong evidence. *Journal of International Financial*

- Management & Accounting*, 15(3), 235-260. <https://doi.org/10.1111/j.1467-646X.2004.00109.x>
47. Li, J., Pike, R., & Haniffa, R. (2008a). Intellectual capital disclosure and corporate governance structure in UK firms. *Accounting and Business Research*, 38(2), 137-159. <https://doi.org/10.1080/00014788.2008.9663326>
  48. Li, H., Wang, Z., & Deng, X. I. (2008b). Ownership, independent directors, agency costs and financial distress: Evidence from Chinese listed companies. *Corporate Governance: The International Journal of Business in Society*, 8(5), 622-636. <https://doi.org/10.1108/14720700810913287>
  49. Li, H., & Qi, A. (2008). Impact of corporate governance on voluntary disclosure in Chinese listed companies. *Corporate Ownership and Control*, 5(2), 360-366. <https://doi.org/10.22495/cocv5i2c3p5>
  50. Liao, L., Luo, L., & Tang, Q. (2015). Gender diversity, board independence, environmental committee and greenhouse gas disclosure. *The British Accounting Review*, 47(4), 409-424. <https://doi.org/10.1016/j.bar.2014.01.002>
  51. Lim, S., Matolcsy, Z., & Chow, D. (2007). The association between board composition and different types of voluntary disclosure. *European Accounting Review*, 16(3), 555-583. <https://doi.org/10.1080/09638180701507155>
  52. Mak, Y. T. (1991). Corporate characteristics and the voluntary disclosure of forecast information: A study of New Zealand prospectuses. *The British Accounting Review*, 23(4), 305-327. [https://doi.org/10.1016/0890-8389\(91\)90065-A](https://doi.org/10.1016/0890-8389(91)90065-A)
  53. Maury, B., & Pajuste, A. (2005). Multiple large shareholders and firm value. *Journal of Banking & Finance*, 29(7), 1813-1834. <https://doi.org/10.1016/j.jbankfin.2004.07.002>
  54. Michelon, G., Bozzolan, S., & Beretta, S. (2015). Board monitoring and internal control system disclosure in different regulatory environments. *Journal of Applied Accounting Research*, 16(1), 138-164. <https://doi.org/10.1108/JAAR-03-2012-0018>
  55. Miras-Rodríguez, M., Martínez-Martínez, D., & Escobar-Pérez, B. (2019). Which corporate governance mechanisms drive CSR disclosure practices in emerging countries? *Sustainability*, 11(1), 61-20. <https://doi.org/10.3390/su11010061>
  56. Oliveira, L., Lima Rodrigues, L., & Craig, R. (2006). Firm-specific determinants of intangibles reporting: Evidence from the Portuguese stock market. *Journal of Human Resource Costing & Accounting*, 10(1), 11-33. <https://doi.org/10.1108/14013380610672657>
  57. Patelli, L., & Prencipe, A. (2007). The relationship between voluntary disclosure and independent directors in the presence of a dominant shareholder. *European Accounting Review*, 16(1), 5-33. <https://doi.org/10.1080/09638180701265820>
  58. Pavlopoulos, A., Magnis, C., & Iatridis, G. E. (2017). Integrated reporting: Is it the last piece of the accounting disclosure puzzle? *Journal of Multinational Financial Management*, 41, 23-46. <https://doi.org/10.1016/j.mulfin.2017.05.001>
  59. Prado-Lorenzo, J. M., Gallego-Alvarez, I., & Garcia-Sanchez, I. M. (2009). Stakeholder engagement and corporate social responsibility reporting: The ownership structure effect. *Corporate Social Responsibility and Environmental Management*, 16(2), 94-107. <https://doi.org/10.1002/csr.189>
  60. Prado-Lorenzo, J. M., & Garcia-Sanchez, I. M. (2010). The role of the board of directors in disseminating relevant information on greenhouse gases. *Journal of business ethics*, 97(3), 391-424. <https://doi.org/10.1007/s10551-010-0515-0>

61. Raffournier, B. (1995). The determinants of voluntary financial disclosure by Swiss listed companies. *European Accounting Review*, 4(2), 261-280. <https://doi.org/10.1080/09638189500000016>
62. Rossi, F., Celenza, D., & Manfredi, S. (2014). How much do intellectual capital, ownership structure and the board of directors affect the performance of Italian listed companies? Paper presented at the 9th *International Forum on Knowledge Asset Dynamics*. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2557607](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2557607)
63. Samaha, K., Dahawy, K., Hussainey, K., & Stapleton, P. (2012). The extent of corporate governance disclosure and its determinants in a developing market: The case of Egypt. *Advances in Accounting*, 28(1), 168-178. <https://doi.org/10.1016/j.adiac.2011.12.001>
64. Scharfstein, D. (1988). The disciplinary role of takeovers. *Review of Economic Studies*, 55(2), 185-199. <https://doi.org/10.2307/2297576>
65. Sengupta, P. (1998). Corporate disclosure quality and the cost of debt. *The Accounting Review*, 73(4), 459-474.
66. Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52(2), 737-783. <https://doi.org/10.1111/j.1540-6261.1997.tb04820.x>
67. Stein, J. (1988). Takeover threats and managerial myopia. *Journal of Political Economy*, 96(1), 61-80. <https://doi.org/10.1086/261524>
68. Tejedo-Romero, F., Rodrigues, L. L., & Craig, R. (2017). Women directors and disclosure of intellectual capital information. *European Research on Management and Business Economics*, 23(3), 123-131. <https://doi.org/10.1016/j.iemeen.2017.06.003>
69. Wan-Hussin, W. N. (2009). The impact of family-firm structure and board composition on corporate transparency: Evidence based on segment disclosures in Malaysia. *The International Journal of Accounting*, 44(4), 313-333. <https://doi.org/10.1016/j.intacc.2009.09.003>
70. Williamson, O. E. (1983). Organizational form, residual claimants and corporate control. *Journal of Law and Economics*, 26(2), 351-366. <https://doi.org/10.1086/467039>
71. Yunus, S., Elijido-Ten, E., & Abhayawansa, S. (2016). Determinants of carbon management strategy adoption: Evidence from Australia's top 200 publicly listed firms. *Managerial Auditing Journal*, 31(2), 156-179. <https://doi.org/10.1108/MAJ-09-2014-1087>
72. Zattoni, A. (2015). Corporate Governance. Milano: Egea.
73. Zattoni, A., & Cuomo, F. (2010). How independent, competent and incentivized should non-executive directors be? An empirical investigation of good governance codes. *British Journal of Management*, 21(1), 63-79. <https://doi.org/10.1111/j.1467-8551.2009.00669.x>
74. Zattoni, A., Witt, M. A., Judge, W. Q., Talaulicar, T., Chen, J. J., Lewellyn, K., & Shukla, D. (2017). Does board independence influence financial performance in IPO firms? The moderating role of the national business system. *Journal of World Business*, 52(5), 628-639. <https://doi.org/10.1016/j.jwb.2017.04.002>



**APPENDIX**

**Table 1A. Correlation matrix**

	<i>Fin_Vol_Disc</i>	<i>BoInd</i>	<i>OwnConc</i>	<i>RoleDual</i>	<i>Meetings</i>	<i>BoSize</i>	<i>ExecDirect</i>	<i>Big4</i>	<i>Profit</i>	<i>Size</i>	<i>Leverage</i>	<i>GS</i>	<i>BoInd*OwnConc</i>
<i>Fin_Vol_Disc</i>	1												
<i>BoInd</i>	0.1548* 0.0176	1											
<i>OwnConc</i>	-0.0659 0.3142	0.0803 0.2198	1										
<i>RoleDual</i>	0.0550 0.4012	-0.1209 0.0642	0.1872* 0.0040	1									
<i>Meetings</i>	-0.0746 0.2546	0.2329* 0.0003	-0.0508 0.4386	-0.1307* 0.0453	1								
<i>BoSize</i>	-0.1471* 0.0241	-0.0447 0.4958	-0.2754* 0.0000	-0.2739* 0.0000	0.1142 0.0807	1							
<i>ExecDirect</i>	0.1555* 0.0170	-0.2631* 0.0000	0.0149 0.8203	0.2654* 0.0000	-0.2180* 0.0008	-0.2686* 0.0000	1						
<i>Big4</i>	-0.0388 0.5535	0.0722 0.2702	-0.0912 0.1633	-0.1144 0.0801	-0.0603 0.3575	0.3021* 0.0000	-0.0780 0.2336	1					
<i>Profit</i>	0.1314* 0.0442	-0.0513 0.4340	0.0849 0.1945	0.0331 0.6137	-0.0061 0.9257	-0.0473 0.4709	0.0336 0.6086	0.0748 0.2532	1				
<i>Size</i>	-0.0494 0.4509	0.0740 0.2584	-0.2777* 0.0000	-0.2626* 0.0000	-0.0080 0.9024	0.5546* 0.0000	-0.2284* 0.0004	0.4772* 0.0000	-0.1578* 0.0154	1			
<i>Leverage</i>	0.0097 0.8823	0.1366* 0.0364	-0.1103 0.0917	-0.1824* 0.0050	0.0353 0.5898	0.3083* 0.0000	-0.1290* 0.0482	0.0557 0.3953	-0.2278* 0.0004	0.3117* 0.0000	1		
<i>GS</i>	0.0525 0.4234	-0.0211 0.7481	0.1501* 0.0213	0.0858 0.1899	-0.0573 0.3819	-0.0758 0.2470	-0.0392 0.5503	0.0100 0.8787	-0.0077 0.9064	-0.0757 0.2475	-0.0724 0.2690	1	
<i>BoInd*OwnConc</i>	-0.0163 0.8041	0.5307* 0.0000	0.8453* 0.0000	0.0853 0.1924	0.0859 0.1895	-0.2390* 0.0002	-0.1282* 0.0497	-0.0582 0.3746	0.0467 0.4757	-0.2273* 0.0004	-0.0241 0.7135	0.0955 0.1443	1