THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND VOLUNTARY DISCLOSURE ON KEY FINANCIAL PERFORMANCE INDICATORS: AN EMPIRICAL ANALYSIS ON ITALIAN LISTED COMPANIES

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Abstract

The aim of the paper is to empirically analyse how different corporate governance mechanisms impact on the level of voluntary disclosure on key financial performance indicators (KFPIs) released by firms. We investigate ownership concentration, board independence, role duality, board meetings and board size, and we hypothesize a relation with voluntary disclosure on KFPIs for each variable analysed. Using an OLS regression model, our results show that there is both a negative relationship between ownership concentration and KFPIs disclosure, and a positive association between board independence and role duality and the level of voluntary financial disclosure.

1. INTRODUCTION

Firms use voluntary disclosure in order to increase their responsiveness towards stakeholders, communicating their activities and the

performance achieved. Voluntary disclosure is useful in reducing information asymmetries between interested parties, having also a non-negligible impact on firms' performance (Healy & Palepu, 2001; Zattoni et al., 2017; Bushman & Smith, 2001).

Previous studies investigating the determinants of voluntary disclosure analysed the impact of both specific characteristics of the firms and corporate governance variables (Chau & Gray, 2010). With specific regard to corporate governance variables, scholars investigated, among others, the potential impact of ownership concentration (Firer & Williams, 2005; Chau & Gray, 2002; Pisano et al., 2017), board independence (Fama & Jensen, 1983; Armstrong et al., 2010; Ho & Wong, 2001), role duality (Carver, 1990; Forker, 1992), board activity (Vafeas, 1999; Frias-Aceituno et al., 2013) and board size (John & Senbet, 1998; Cheng & Courtenay, 2006) on voluntary disclosure. However, they found mixed results.

Our paper contributes to the stream of research investigating the determinants of voluntary disclosure, analysing the impact of corporate governance variables on the quantity of voluntary disclosure provided by firms. More specifically, we focused on the analysis of voluntarily disclosure on key financial performance indicators (KFPIs).

Our analysis has been conducted on a sample of Italian non-financial listed companies.

The results show a positive relationship between both board independence and role duality and the quantity of voluntary disclosure on KFPIs, as well as a negative association between ownership concentration and voluntary disclosure on KFPIs.

The remainder of the paper is organized as follows: Section 2 reports the literature review and hypotheses development, Section 3 describes the methodology. The results are reported in Section 4. Finally, Section 5 presents the discussion and conclusions.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

According to Bushman and Smith (2001), both scholars and regulators have increasingly paid attention to the relationship between corporate governance and disclosure.

Over the last century, factors such as the complex business operating environment, characterized by information asymmetry, uncertainty and opportunistic behaviour, the development of financial markets, the separation between ownership and control, the increased role of institutional investors (Zattoni, 2015) have dictated an increasingly growing research interest in understanding which mechanism is most suitable in reducing information asymmetries as well as in guaranteeing the best possible performance. Literature has been largely agreed upon in identifying corporate voluntary disclosure as a useful mechanism for reducing information asymmetries (Healy & Palepu, 2001) and for increasing corporate value (Bushman & Smith, 2001). According to the agency theory (Jensen & Meckling, 1976), the

management (agent) could decide to voluntarily provide information to the external investors (principal) in order to reduce agency costs by improving the value of the company (Barako et al., 2006). The provision of voluntary information could increase the reliability of management (Healy and Palepu, 2001), enhancing the confidence of investors.

Considering the relevance of voluntary disclosure for the efficient functioning of the capital markets, a lot of scholars have investigated its determinants (Healy & Palepu, 2001; Li et al., 2008a). Next sections review previous studies on the relationship between different corporate governance variables and voluntary disclosure, useful to develop our hypotheses.

2.1. Ownership concentration and voluntary disclosure

Most studies underlined the relationship between ownership concentration and voluntary disclosure (Bukh et al., 2005; Cerbioni & Parbonetti, 2007; Firer & Williams, 2005; Li et al., 2008b; Oliveira et al., 2006; Pisano et al., 2017). In according to Eng and Mak (2003) voluntary disclosure is influenced by ownership structure.

In an attempt to reduce agency conflicts, scholars emphasized the need to detect mechanisms that would allow controlling the behaviour of management: voluntary disclosure is one of it (Frankforter et al., 2000; Ho & Wong, 2001). In according to Jensen and Meckling (1976) principals (shareholders) can control whether management is acting in the company's interests and, in the same way, agent (management) can signal that acts in the owner's interests.

Most of the literature (Chau & Gray, 2002; Cormier et al., 2005; Brammer & Pavelin, 2006; Patelli & Prencipe, 2007) suggests a negative relationship between ownership concentration and voluntary disclosure, mainly in contexts characterized by high levels of ownership concentration, such as Italy. In these contexts, firms with more capital concentration are less inclined to voluntarily release information because the largest shareholders are able to directly obtain the information they need. Previous empirical research investigating the relationship between ownership concentration and voluntary disclosure found a negative association (McKinnon & Dalimunthe, 1993; Mitchell et al., 1995; Schadewitz & Blevins, 1998). Thus, we hypothesize that:

H1: There is a negative relationship between ownership concentration and the level of voluntary disclosure on KFPIs.

2.2. Board independence and voluntary disclosure

The board of directors is delegated by shareholders to take decisions (Patelli & Prencipe, 2007). According to Fama and Jensen (1983), board composition is an important element to monitor the management's acts. We focus on the level of independence of the board and its effect on the quantity of voluntary disclosure on KFPIs. The presence of independent directors raises the level of voluntary disclosure because it is more likely

that they are not aligned with internal directors, indeed encouraging company to disclose more information to stakeholders (Michelon et al., 2015): an independent director plays a very important role within the board (Fama, 1980). The independent director has reputational concerns, so that its monitoring activity induces management to be more responsive to external investors and all stakeholders (Armstrong et al., 2010; Lim et al., 2007; Chau & Gray, 2010; Forker, 1992; Ho & Wong, 2001; Lim et al., 2007).

Although there are studies founding a negative relationship between board independence and voluntary disclosure (Eng & Mak, 2003; Gul & Leung, 2004), or no significant relationship (Ho & Wong, 2001), the majority of previous research found a positive association between board independence and voluntary disclosure (Akhtaruddin et al., 2009; Cerbioni & Parbonetti, 2007; Chau & Gray, 2010; Chen & Jaggi, 2000; Cheng & Courtenay, 2006; Cuadrado-Ballesteros et al., 2015; Donnelly & Mulcahy, 2008; Garcia-Sanchez, 2014; Jaggi et al., 2017; Karamanou & Vafeas, 2005; Liao et al., 2015; Lim et al., 2007; Patelli & Prencipe, 2007; Pavlopoulos et al., 2017; Yunus et al., 2016). Thus, we assume that:

H_2: There is a positive relationship between board independence and the quantity of voluntary disclosure on KFPIs.

2.3. Role duality and voluntary disclosure

When a chairman of the board is also the CEO truthfulness of the information provided by the company is compromised (Fama & Jensen 1983; Carver, 1990; Jensen, 1993). Role duality hinders effective monitoring of management actions that should be implemented by the chairman of the board. According to Forker (1992), role duality represents a conflict of interests between a dominant party and the interests of the stakeholders. The duality weakens the monitoring action. Therefore, the separation of roles, as best practice, reinforces the control of the board, thus promoting also a better information disclosure.

However, there are also scholars (Eisenhardt, 1989; Dahya et al., 1996; Donaldson & Davis, 1991; Rechner & Dalton, 1991) supporting a positive relation between role duality and disclosure. When the role is combined, the chairman/CEO may be able to shape the company to achieve stated objectives as there will be less interference. The authors sustain this idea on the basis of the stewardship theory, which states that managers act in the best interests of the firm and shareholders. As a consequence, role duality enhances the effectiveness of boards and increases the level of disclosure.

Most previous studies investigating the relationship between role duality and voluntary disclosure found a negative association (Laksmana, 2008; Lakhal, 2005; Gul & Leung, 2004; Eng & Mak, 2003; Haniffa & Cooke, 2002). Thus, we hypothesize that:

H_3: There is a negative relationship between role duality and the quantity of voluntary disclosure on KFPIs.

2.4. Board meetings and voluntary disclosure

With regard to the activity level of the board of directors, proxied by the number of meetings held, there are different positions. On the one hand, a high number of meetings can be understood as an element of the inefficiency of directors (Vafeas, 1999). On the other hand, it is maintained that a substantial number of meetings can allow more effective control of the business operations and, consequently, a greater propensity to voluntary disclosure (Lipton & Lorsch, 1992).

Empirical research reported contrasting results. Some studies (Xie et al., 2003; Frias-Aceituno et al., 2013) confirmed that a greater number of meetings would allow better supervision and control, thus discouraging not very transparent manipulation of profits. Other studies found no significant relation between the activity of the board and voluntary disclosure (Karamanou & Vafeas, 2005).

H_4: there is a positive relationship between the number of board meetings and the quantity of voluntary disclosure on KFPIs.

2.5. Board size and voluntary disclosure

John and Senbet (1998) showed that, when the number of board members increases, the monitoring function is more efficient. Contrary to this idea, both Lipton and Lorsch (1992) and Jensen (1993) sustained that too large board could be less able to put in place a more efficient control.

Empirical results found both a negative relationship between board size and voluntary disclosure (Yermack, 1996) and no relationship between these variables (Cheng & Courtenay, 2006). Thus, we hypothesize that:

H_5: There is no association between board size and the quantity of voluntary disclosure on KFPIs.

3. METHODOLOGY

3.1. Sample selection and data source

The sample consists of 235 Italian companies. These firms have been selected from non-financial firms listed on the Italian stock exchanges on December 31, 2016. We excluded bank and insurance companies because they draw up their financial statements according to different regulations. All non-financial firms listed in 2016 (263 companies) compose our original sample. A number of 28 companies have been excluded because they did not provide information on ownership structures and accounting and financial data.

Both accounting and financial data and information on ownership structures were collected from Bureau Van Dijk Orbis database. Data on corporate board characteristics have been obtained from the corporate governance report. Information on KFPIs was collected from the annual reports.

3.2. Variables

3.2.1. Dependent variable

We measured our dependent variable in terms of the number of KFPIs released by companies. To select the KFPIs we referred to the guidance issued by the Italian professional standards setter to help firms in drawing up their management discussion and analysis statement. We identified 25 items.

Thus, our unweighted index is equal to the sum of KFPIs released by each company.

$$KFPI\_disc_i = \sum KFPI_i \qquad (1)$$

The *KFPI_Disc* assigned to firm i is equal to the sum of KFPIs disclosed by company i.

After identifying the KFPIs, we content-analyzed the annual reports drawn up for the year 2016 by each company, and we collected data on each KFPI. The quantity of KFPIs released by each company can range from 0 (in case of no disclosure of KFPIs) to 25 (when the company disclosed all the KFPIs identified).

3.2.2. Independent variables

The first independent variable we consider is ownership concentration (OwnConc). We measured OwnConc as the sum of the percentage of shares held by the two largest shareholders (Pisano et al., 2017). Higher values of OwnConc correspond to higher concentrations of power in the hands of the largest shareholders. The second independent variable is board independence (BoInd), measured as the percentage of independent directors sitting on the board (Chen & Jaggi, 2000; Ho & Wong, 2001; Lim et al., 2007). The third independent variable is role duality (RoleDual), measured appointing the value 1 to companies in which the chairman of the board is also the CEO and 0 otherwise (Cheng & Courtney, 2006). The fourth independent variable is board meeting (BoardMeeting), measured as the total number of board meetings during the years (Qadorah & Fadziah, 2018). The last independent variable is board size (BoSize), computed as the number of board of directors' members (Elfeky, 2017).

3.2.3. Control variables

We inserted some firm-specific characteristics affecting voluntary disclosure (Anderson et al., 2004; Ashbaugh-Skaife et al., 2006; Sengupta, 1998). We measured the size of the firms (Size) through the natural logarithm of total assets, and hypothesized a positive association with voluntary disclosure: big firms, in fact, should provide more information in order to satisfy the demand of investors, also considering that the average costs for collection and dissemination of information that they support are lower than for smaller firms (Cerbioni & Parbonetti, 2007). We computed leverage (Lev) as the long term debt

divided by total assets, and predicted to have a positive association with voluntary disclosure; firms with higher leverage have more incentive to voluntarily disclose information because they want to reduce agency costs with creditors (Jensen & Meckling, 1976). We included the profitability of the firm (Profit), measured by the natural logarithm of the Tobin's Q market. We hypothesized a positive relationship with our dependent variable because firms that present high levels of profitability could be more open to voluntary disclosure, in order to emphasize their good performance (Raffournier, 1995).

3.3. Empirical model

Figure 1 (see Appendix) shows the research model we used to analyze the effect of our independent variables on the quantity of voluntary disclosure on KFPIs.

To test the hypotheses, we used the OLS regression of voluntary disclosure on KFPIs on corporate governance variables and control variables, as it follows:

$$KFPI\_Disc) = a + \beta_1 OwncConc + \beta_2 BoInd + \beta_3 RoleDual$$
$$+ \beta_4 BoardMeeting + \beta_5 BoSize + \beta_6 Size + \beta_7 Lev \quad (2)$$
$$+ \beta_8 Profit + \varepsilon$$

4. EMPIRICAL RESULTS

4.1. Descriptive statistics and correlations

The sampled companies disclosed 12, 21 KFPIs on average, with a number of 4 and 23 as minimum and maximum value, respectively. The level of voluntary financial disclosure is relatively low.

Data regarding the governance attributes show that the average value of OwnConc is 0.63. The maximum value is 1 and the minimum is 0,23. The first owner has on average 50.06% of the shares, the second 13.62%. About board independence *(BoInd)* it varies widely across our sample from 0 to 81.81%, with a mean value of 45.35%. In other words, in our sample, there are companies having no independent directors sitting on the board, although the Italian Self-Regulation Code suggests having at least two independent directors. The average number of directors on the board is 8.7. There is substantial variability in board size *(BoSize),* ranging from 2 to 17 directors (respectively minimum and maximum value). In 35% of the sampled companies, there is a coincidence between the CEO and the chairman of the board (RoleDual). The average number of board meetings *(BoardMeeting)* is 8.7, the minimum value is 1 and the maximum is 39.

Table 3 (see Appendix) reports the Pearson correlation for our variables. *KFPI_Disc* is negatively correlated with ownership concentration and positively correlated with bot board independence and board size.

4.2. Regression analysis

Table 4 (see Appendix) shows the results of regression models, providing evidence for the hypotheses developed. In Model 1 we report the effect of control variables on the quantity of voluntary disclosure on KFPIs. In Model 2 we show the direct effect of our corporate governance variables on *KFPI_Disc*. Model 2, based on all the variables, better explains the context under analysis, showing a higher R2.

Findings of Model 2 confirm our first hypothesis: there is a significant and negative relationship between *OwnConc* and the quantity of voluntary disclosure on KFPIs. The coefficient of *OwnConc* is statistically significant at better than the 10 percent level for explaining variations in the *KFPI_Disc (β = −1.510, p<0.10)*. This means that a higher percentage of shares held by the first two largest shareholders impacts negatively on the level of voluntary financial disclosure. Model 2 also shows that there is a significant and positive relationship between board independence and our dependent variable. The coefficient of *BoInd* is statistically significant at better than the 1 percent level for explaining variations in *KFPIs_Disc* (ß = 2.695, p < 0.01). The positive value of the coefficient obtained is consistent with our second hypothesis, showing that companies presenting a more independent board of directors tend to disclose a higher quantitative level of financial information. So, the higher the percentage of independent directors, the higher the voluntary financial disclosure quantity is. About our third hypothesis, supposing that more power concentration in the hands of the chairman of the board that is also the CEO's company involves less disclosure, the results of Model 2 show that there is a positive relationship between *RoleDual* and *KFPI_Disc*, however the significance is very poor (ß = 0.670, p < 0.10). Results also show no significant relationship between both *BoardMeeting* and *BoSize* and dependent variable, providing no support to the last two hypotheses developed.

Finally, with respect to control variables, the results show a positive and significant relationship between both *Size* and *Profit* and *KFPI_Disc*.

5. DISCUSSION AND CONCLUDING REMARKS

The analysis of the relationship between corporate governance and the quantity of voluntary financial information disclosed is the focus of the paper. The choice to investigate voluntary financial disclosure, from a quantitative perspective, derives from the crucial role played by this type of information. A higher level of quantitative information voluntarily disclosed reflects its effects on the stock market. Greater information and transparency, in fact, make it possible to reduce uncertainty with respect to a given economic reality, increasing its potential efficiency in terms of appeal in the market by interested investors (Scharfstein, 1988; Stein, 1988). Moreover, another fundamental function of voluntary disclosure is to allow better control of the behaviour of management (Frankforter et al., 2000; Ho & Wong, 2001). Thanks to voluntary disclosure, shareholders can control whether management is acting in the company's

interests and, in the same way, the management can signal that acts in the owner's interests.

However, companies characterized by high levels of ownership concentration, such as Italian firms, experience less pressure for voluntary disclosure. In these companies, the largest shareholders are frequently involved in the governance of companies and have systematic access to information via private channels. At the same time, minority shareholders, that are small and less interested in governance, normally do not exert any significant pressure to acquire information (Cormier et al., 2005; Chau & Gray, 2002; Brammer & Pavelin, 2006; Patelli & Prencipe, 2007). In this context, it is normal to expect a negative relationship between ownership concentration and voluntary disclosure. The negative coefficient of *OwnConc* is consistent with this expectation, highlighting that ownership concentration and voluntary disclosure serve as substitute mechanisms to mitigate agency problems in companies characterized by high levels of ownership concentration.

These results are consistent with those of previous studies of the determinants of voluntary disclosure.

The sign of our *OwnConc* coefficient is the same as that obtained by other studies that analysed the relationship between ownership concentration and other types of disclosure. Patelli and Prencipe (2007), for example, obtained a positive relationship between the diffusion of capital and voluntary disclosure in the annual report. Brammer and Pavelin (2006), instead, obtained a negative relationship between ownership concentration and environmental reporting. In the same vein, Firer and Williams (2005), Li et al. (2008b), Oliveira et al. (2006), Pisano et al. (2017) found a negative relationship between ownership concentration and both intellectual capital and human capital disclosure by companies. This means that companies characterized by a high concentration of ownership tend not to provide voluntary information to financial markets, regardless of the content of disclosure to release.

Another result of our study is that a more independent board of directors is positively related to a higher quantitative level of financial information released, supporting our second hypothesis. So, when the percentage of independent director rises information asymmetries decrease. This means that board independence acts as a good corporate governance mechanism stimulating voluntary disclosure. These results are in line with the findings of previous studies (Akhtaruddin et al., 2009; Chen & Jaggi, 2000; Cuadrado-Ballesteros et al., 2015; Donnelly & Mulcahy, 2008; Garcia-Sanchez et al., 2014), that showed board independence is a good corporate governance mechanism, able to stimulate a higher level of voluntary disclosure. Thus, our findings support the control function of independent directors (Fama, 1980).

Finally, we found that more power concentration in the hands of the chairman of the board that is also the CEO involves more disclosure. Although the significance of the relationship is very low (p<0.10), our result could be justified by the high levels of ownership concentration that characterize Italian companies. In fact, according to Forker (1992),

the duality of the role represents a conflict of interests between a dominant party and the interests of the stakeholders. However, in Italian firms the largest shareholders frequently assume the role of CEO and chairman; in these contexts, the release of higher levels of disclosure could be useful in reducing the information asymmetries with minority shareholders and creditor, reducing the type II of agency problems (Rhoades et al., 2001; Al-Moataz & Lakhal, 2011). Our result is in line with the argument of some scholars (Eisenhardt, 1989; Dahya et al., 1996; Donaldson & Davis, 1991; Rechner & Dalton, 1991) supporting that, when the role is combined, the chairman/CEO may be able to shape the company to achieve stated objectives as there will be less interference. As a consequence, role duality enhances the effectiveness of boards and increases the level of disclosure released.

This study contributes to the academic literature by offering an analysis focused on the relationship between different variables characterizing the corporate governance structure and the quantitative level of information voluntarily disclosed on KFPIs by firms.

The results of the study have different implications. The low level of voluntary disclosure released by Italian firms is in contrast with the increasingly growing demands for transparency in the international context. Such communication behavior logically discourages investors, leaving the agency conflicts partially unsolved. Therefore, the results of the study could be useful for both the management and the ownership in order to define a more adequate strategy of communication, and for the legislator to better regulate the roles and powers of the subjects involved in the corporate governance.

The study presents various limitations. First of all, the sample, which only includes Italian firms, thus leaving out the companies operating in other countries. Next researches will, therefore, have to investigate a sample that can refer to a much broader context, in the hope of being able to obtain more representative results. Moreover, this study investigated the effectiveness of different corporate governance variables individually. However, the effectiveness of each corporate governance mechanism can vary if considered in conjunction with other mechanisms. As a consequence, future research will investigate the interaction between different corporate governance mechanism in affecting the level of voluntary disclosure. Finally, this paper focused on the quantity of disclosure released; however, it could be very interesting to consider also the quality of the information provided, analysing the attributes (type, nature, time orientation) of the data released.

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APPENDIX

Table 1. Variable description and data source

Variable	Description	Measurement	Data source
Dependent variable			
KFPI_disc	Quantity of Voluntary Disclosure on KFPIs	Number of KFPIs released	Annual report
Independent variable			
OwnConc	Ownership concentration	Sum of the percentage of shares held by the first two largest shareholders	ORBIS database
BoInd	Board independence	The number of independent directors divided by the total number of board members	Corporate Governance Report
RoleDual	CEO/Chairman duality	1 if the company's chairman of the board is also the CEO and 0 otherwise	Corporate Governance Report
BoardMeeting	Number of board meetings	Total number of board meetings during the years	Corporate Governance Report
BoSize	Board size	The number of members on the board of directors	Corporate Governance Report
Control variable			
Size	Firm Size	Natural logarithm of total assets	ORBIS database
Lev	Leverage	Long term debt divided by total assets	ORBIS database
Profit	Market-based performance	Natural logarithm of Tobin's Q, measured as the market value of assets divided by the book value of total assets.	ORBIS database

Table 2. Descriptive statistics of dependent, independent and control variables

Variable	Obs	Mean	Std. Dev	Min	Max
KFPI_Disc	235	12.21277	3.144227	4	23
Independent variables					
OwnConc	235	.6304298	.2106717	.0235	1
BoInd	235	.4535206	.174616	0	.8181818
RoleDual	235	.3489362	.4776511	0	1
BoardMeeting	235	8.72766	4.358198	1	39
BoSize	235	8.702128	2.893515	2	17
Control variables					
Size	235	19.46157	2.133745	14.11413	25.77053
Lev	235	.1565166	.1383878	.0	.6127172
Profit	235	.7968358	1.062336	.0034102	11.38

Table 3. Correlation matrix

	KFPI_Disc	OwnConc	BoInd	RoleDual	BoardMeeting	BoSize	Size	Lev	Profit
KFPI_Disc	1								
OwnConc	-0.1521** 0.0197	1							
BoInd	0.1320** 0.0432	0.0588 0.3699	1						
RoleDual	-0.0098 0.8811	0.1532 0.0188	-0.1367 0.0363	1					
BoardMeeting	-0.0681 0.2985	-0.0851 0.1935	0.2458*** 0.0001	-0.1307** 0.0453	1				
BoSize	0.1615** 0.0132	-0.2909*** 0.0000	-0.0329 0.6153	-0.2739*** 0.0000	0.1142* 0.0807	1			
Size	0.3875*** 0.0000	-0.2429*** 0.0002	0.0882 0.1778	-0.2626*** 0.0000	-0.0080 0.9024	0.5546*** 0.0000	1		
Lev	0.0327 0.6183	-0.0773 0.2378	0.1390** 0.0332	-0.1824*** 0.0050	0.0353 0.5898	0.3083*** 0.0000	0.3117*** 0.0000	1	
Profit	0.0676 0.3023	0.0526 0.4220	-0.0484 0.4601	0.0331 0.6137	-0.0061 0.9257	-0.0473 0.4709	-0.1578** 0.0154	-0.2278*** 0.0004	1

Table 4. Regressions

Variable	Model (1) Control variables only	Model (2) Direct effect of corporate governance variables
Intercept	-.1145147 -0.06	-.040998 -0.02
Independent variables		
OwnConc		-1.510798* -1.62
BoInd		2.695271*** 2.37
RoleDual		0.6706097* 1.61
BoardMeeting		-.0638386 -1.42
BoSize		-.0457442 -0.56
Control variables		
Size	.6326149*** 6.78	.6498542*** 5.91
Leverage	-1.684934 -1.16	-1.59089 -1.06
Profit	.3505402** 1.92	.3788168** 2.09
N	235	235
F-statistic	15.99	7.54
Probability > F	0.0000	0.0000
R2	0.1719	0.2106
Adj R2	0.1612	0.1826

Figure 1. Research model