Determinants of Corporate Financial Disclosures: An Empirical Analysis of Family and Non-Family Small and Medium-Sized Enterprises

Andrea Quintiliani

Department of Law and Economic Sciences, Pegaso Telematic University
48 Piazza Trieste e Trento, Naples 80132, Italy

Abstract

Objectives. This paper aims to empirically investigate the determinants of corporate financial disclosure (CFD) and the possible associations between the extent of CFD and financial/non-financial variables.

Methodology. The study is among descriptive and correlational researches and using panel data methodology on sample of family and non-family SMEs listed on AIM Italia. The time under study was from 2006 to 2011. In addition, the hypotheses of the research have been tested analyzing the content of annual reports pertaining to each of Italian SMEs.

Findings. In general, the findings indicate that the agency and proprietary cost theories play a vital role in explaining the quantity of financial disclosure by Italian SMEs.

Research limits. Data used for this study need to be subjected to more statistical tests in order to establish a more robust validity and reliability. It is necessary to acquire further strengthened data and assume a variety of conditional situations. It is expected that subsequent studies can use larger samples and diversified by sector, a broader geographic base and a multi-faceted analyses.

Practical implications. The results of this study could assist Italian SMEs and bankers in integrating CFD in their corporate strategies and help the local and international business communities in understanding the characteristics of CFD in Italy.

Originality of the study. The study is the first attempt to understand practice by which family and non-family SMEs communicate their financial disclosure to different stakeholders.

Keywords: CFD, Family business, SME, Agency cost, Financial crisis, Stakeholder perspective

1. Background and motivation

The traditional sectors in which Italian companies operate are considered high visibility with a large stakeholder's base. Italian firms use, amongst other communication channels, their annual reports to interact with stakeholders.

This behavior by corporation, including family business, is referred to as corporate financial disclosure (CFD) defined as (Alfraih & Almutawa, 2014): «A manifestation of the practice by which organizations communicate their financial disclosure to different stakeholders».

Several empirical studies on corporate financial disclosure examined the extent of disclosure in annual reports in both developing and developed countries. Surprisingly, despite the critical role of corporate disclosures in mitigating information asymmetry, the literature on the extent of corporate disclosure documented substantial variations in disclosure levels across countries and among firms (Glaum & Street, 2003; Al-Shammari, et al., 2008; Demir & Bahadir, 2014; Aljifri, et al., 2014).

The notable variations in the level of disclosure across firms worldwide encourage researchers to examine factors behind this variation. Firm corporate-specific characteristics are expected to be important factors that influence the level of disclosure.

Empirically, several disclosure studies explored the relationship between the extent of corporate disclosure and several institutional and corporate characteristics. For instance, Aljifri et al. (2014) conducted a study on UAE listed and unlisted companies and concluded that the industry, type, size, profitability, liquidity, ownership diffusion, audit quality, leverage, internationality, age, and listing status significantly explain the variation in the level of disclosure.

Despite the numerous studies on CFD, its determinants and the factors that affect CFD, the related literature has superficially touched on the potential relationship between the recent global financial crisis and corporate financial disclosure. The systemic breakdown in the United States during 2007 and 2008 led to widespread failures of financial institutions or freezing up of capital markets. The result was loss of liquidity, collapse of stock indices, loss of confidence among investors, and increased risk aversion.

With respect to the effect of the recent financial crisis on disclosure, Haji and Ghazali (2011) examined CFD in the annual reports of Malaysian companies in 2006 before the start of the financial meltdown and in 2009 after its onset. Their results show that the extent and quality of the disclosures increased significantly in an attempt from companies to legitimize their actions and reduce their exposure to financial, social, and political

turbulences.

Myers's research (2014) not on the same line. The author in analyzing Chinese companies conclude that the increase in CFD during the crisis was insignificant as compared to the period before the crisis.

From this angle and following other similar studies, this paper examines the determinants and extent of corporate financial disclosure (CFD) by Italian SMEs by testing eight hypotheses related to size, financial performance, and other variables as potential explanatory variables of the CFD extent.

Nevertheless, it goes beyond the scope of the current literature in four main dimensions:

- it focuses on listed SMEs only;
- it analyzes the content of the annual reports of these SMEs over an extensive period of time (2006 to 2011);
- it is comprehensive in scope; in other terms, it does not only focus on one variable or just a few, but rather provides a complete assessment of the potential explanatory proxies;
- it takes into account the variation of CFD before, during, and after the recent global financial crisis.

This paper is structured as follows: the next section outlines the several theories attempting to explain the CFD behavior; the third section sets out the hypotheses to be tested followed by section four which introduces the research design and methodology; the analysis part follows, and finally, the last section provides concluding remarks.

2. Theoretical frameworks

There is still no single theoretical underpinning that is able to explain on its own the CFD phenomenon. Thus, CFD should be looked at from different angles. Healy and Palepu (2001) proposed the following two angles:

- decision-usefulness perspective;
- economic perspective;
- stakeholder perspectives.

The first two perspectives are overlapping ones (Healy & Palepu, 2001) and argue that organizations disclose accounting information that is useful for investment decisions and in predicting accounting practices, defining the costs and benefits, and engaging in those practices when benefits exceed costs and lead to wealth maximization (Watts & Zimmerman, 1990). Moreover, and from an agency point of view, managers can use the accounting and annual reports to reflect a favorable image of their role in the organization and preserving their self-interests (Ness & Mirza, 1991). According to Buskirk (2012), the agency theory's focus on wealth maximization limits the relevance of financial disclosure and its original purpose. Buskirk (2012) points to the fact that Positive Accounting Theory (PAT) and agency theories assume that rational managers maximize their own interests and wealth and thrive in an opportunistic environment. From this angle, CFD is seen as an attempt to minimize agency costs. From a different economic perspective, the proprietary cost theory, as discussed by Askary and Jackling (2005), separates between two types of costs: the preparation costs and competitive costs. Preparation costs relate to any costs of preparing and disseminating information (Depoers, 2000; Haji & Ghazali, 2011), whereas competitive costs arise from disclosure of information about the different business lines to competitors which could harm the disclosing companies. In a nutshell, when these costs increase, companies will not be able to afford additional disclosures. The economic/decision-usefulness theoretical perspective was heavily criticized by Healy and Palepu (2001), Khurana et al. (2006) and Buskirk (2012) for inconsistency of results.

The other theoretical dimension relate to stakeholders theories that earned the biggest share and support of the relevant CFD literature. In this context, the organization is an inseparable part of the community and is under pressure from all stakeholders such as the government, investors, lenders, suppliers and employees (Lambert, et al., 2007).

3. Hypotheses development

The relationship between the extent of CFD and several SMEs characteristics, particularly size, financial performance, age, type of firm, and international presence will be examined. Hence, seven hypotheses are formulated to validate these relations.

The size of the firm

Hackston and Milne (1996) claimed that large companies use the annual reports to communicate with their shareholders about their various activities. Nevertheless, Lardon and Deelof (2014) asserted that the smaller the firm size the greater the barriers to financial disclosure, because smaller firms are overwhelmed by the environment in which they operate. While many researchers such as Farina (2009), Kim et al. (2013) and Ojeka et al. (2015), found a significant positive linear relationship between the firm size and CFD, other scholars, in particular, Forker (1992) and Prat (2005) did not observe such association. The findings are therefore still inconclusive. This paper considers that firms' total assets and shareholders' equity are valid proxies for the size

because the greater the firm's size, the greater the exposure to stakeholders, hence:

Hypothesis 1: The size of Italian firm (proxied by total assets and total shareholders' equity) is a determinant of CFD extent and is positively related to it.

Similar to the findings related to the size of the firm, studies attempting to relate financial performance to CFD are still indecisive. Bushman and Smith (2001) and Ojeka et al. (2015) found a significant association between CFD and a firm's financial performance despite the limited evidence of a long-term relationship. Conversely, researchers such as Prat (2005), and Sahore and Verma (2017) did not find a significant relationship between profitability and CFD. The financial performance of firms is proxied by the traditional financial measures: Return on Average Equity, Return on Average Assets, and Net Income:

Hypothesis 2: The financial performance of Italian SMEs (proxied by net income, return on average assets and return on average equity) is a determinant of CFD extent and is positively related to it.

The type of SME

There are two major types of Italian SMEs: family-owned and not. Compared to non-family firms, family firms face less severe agency problems due to the separation of ownership and management, but more severe agency problems that arise between controlling and non-controlling shareholders (Vilaseca, 2002; Zahra, 2005; Gibb Dyer, 2006). These characteristics of family firms affect their financial disclosure practices. For S&P 500 firms, Ali et al. (2007) show that family firms report better quality earnings and are more likely to warn for a given magnitude of bad news. However, family firms make fewer disclosures about their corporate governance practices. Consistent with family firms making better financial disclosures, the study by Ali et al. (2007) indicate that family firms have larger analyst following, lower dispersion in analysts' earnings forecasts, smaller forecast errors, less volatile forecast revisions, and smaller bid-ask spreads. This paper argues that family firms provide greater financial disclosure than non-family firms, because the latter perceive CFD as an embedded concept in their business:

Hypothesis 3: The type of Italian SMEs is a determinant of CFD.

Hypothesis 4: Family business allocate greater importance to corporate financial disclosure than non-family owned businesses.

The age of the SME

A firm's reputation is built with age, thus firms attempt to strengthen their reputation through CFD. From a similar angle, it can be assumed that the older the firm, the more it is engaged in investor relations policy. Nevertheless, the relationship between the age and CFD is still inconclusive. Similar to the findings of Glaum and Street (2003) reported a feeble relationship; conversely, Demir and Bahadir (2014) noted a significant association, hence the following hypothesis:

Hypothesis 5: The age of Italian SME is a determinant of CFD extent and is positively related to it.

The international exposure

Firms with international branches are exposed to different cultures, economic and financial environments; hence, they are expected to align their activities with the needs and environmental conditions of the foreign countries in which they conduct their business (van der Laan Smith, et al., 2005; Farina, 2009). Besides, family firm need to adopt modern corporate culture and embrace transparency and openness towards foreign financial partners. To prosper, businesses need to raise financing at a time when relationships with banks have been strained or unfairly exposed to systemic risk. Those that insist on maintaining a veil of secrecy over their affairs will find it difficult to raise debt and equity financing. Equally importantly, more transparent family companies will be able to attract potential foreign partners, as these will be able to assess the associated counterparty risk. Consequently, the association between international exposure and corporate financial disclosure is open for further investigation:

Hypothesis 6: The international exposure of Italian SMEs is a determinant of CFD.

Hypothesis 7: Italian SMEs with international exposure disclose more financial information than those with no international exposure (proxied by the availability of foreign branches).

The global financial crisis

Haji and Ghazali (2011), in Malaysia countries, noted that CFD increased during the recent global financial crisis. The reason logic behind this increase is that the financial crisis shrinks business profits and weakens their competitiveness, which can lead to lower market shares and credit crunch phenomenon; therefore, firms increase their financial disclosure in order to gain financial support and maintain their position in the market during the hard times. In order to assess the degree of variability of CFD, the time frame of this study spans over six years as discussed in the next paragraphs:

Hypothesis 8: The extent of CFD of Italian SMEs is different during the pre-crisis, crisis, and post-crisis periods.

4. Research design and strategies

The following paragraphs discuss the methodology used and the sample characteristics and sampling procedures:

Methodology

Content analysis of annual reports pertaining to each of the Italian SMEs is employed to collect data over a

period stretching between 2006 and 2011. This period is divided into three stages: the pre-crisis stage (2006 and 2007), the crisis period (2008-2009), and the post-crisis or recovery period (2010 and 2011). Annual reports as source of corporate data are more credible than any other form of published information (Hackston & Milne, 1996; Farina, 2009) and provide an overall view of the organization's activities.

The code book used is based on Farina (2009) and includes four categories of disclosure: shareholders disclosure (share price, summary of financial data, qualification of the accountants, earnings-per-share, and free cash flow); disclosure of forward-looking information (sale expanding plan, economic-financial plan, project of cash flows, earnings per share forecast, future sales forecast, planned capital expenditure, future profit forecast, future loans forecast, future securities impairment charges forecast, and risk management process); board structure disclosure (skills and experiences, directors' interests in competing businesses, and meetings); disclosure of information to third parties (credit standing, bank loan, mortgage and their use, quality, CRM, sustainable investments, job creation, and company's key relationships with investors). Concerning the unit of measurement of CFD, Nassreddine (2016) listed several types used by different studies (Malone, et al., 1993; Meek, et al., 1995; Raffournier, 1995) and concluded that the number of pages, the number of words, and the number of sentences are the most adopted measures in similar studies. For him, sentence count is preferred since it better communicates the meaning of CFD. The same was echoed by Hackston and Milne (1996) who favored this means over the other measures because the print, column, and page sizes differ from one report to another and the word count can lead to confusion and disagreement between the coders. For clarity and structure and consistent with Farina (2009), the number of words and sentences are used in this paper to allow for a multi-dimensional analysis of the annual reports.

The sample

Since this paper examines the quantity and quality of CFD by Italian SMEs, only SMEs who have published annual reports on the web are considered.

Accordingly, the workable sample consists of sixteen SMEs listed on AIM Italia, of which twelve are family-owned and four are non-family firms.

To clarify, AIM Italia is the Borsa Italiana listing market dedicated to SME's. At the end of 2017, seventy-five companies were listed; however, as the annual reports were being gathered for data collection in 2017, fifty-nine firms had to be removed from the sample due to either the absence of published annual reports on the web or the late establishment of some other SMEs (some started to operate in 2008; their inclusion would jeopardize the time frame of the study).

5. Analysis

The following paragraphs discuss the methodology used and the sample characteristics and sampling procedures:

Descriptive analysis

Table 1. Characteristics of the sample over six years

Variable	Mean	SD	Min	Max	Skew	Kurt
Age	28.64	10.62	-	44.00	(1.10)	0.73
Net profit (000 AED)	1,114,352.51	1,103,406.19	(512,799.00)	3,707,547.00	0.97	(0.13)
Total assets (000 AED)	68,909,147.33	74,147,432.18	4,789,662.00	286,078,324.00	1.51	1.64
Total equity (000 AED)	8,582,222.72	8,288,594.17	965,872.00	34,981,054.00	1.43	1.41
ROAA	2.21	1.29	(1.62)	5.25	0.05	0.25
ROAE	14.66	8.21	(16.60)	34.79	(0.50)	1.38

Source: our elaboration.

Note: SD represents the standard deviation; Skew and Kurt refer to the coefficients of skewness and kurtosis, respectively. ROAA denotes the return on average assets while ROAE stands for the return on average equity.

Table 1 summarizes the overall outlook of the sample by examining major financial and non-financial variables. The table shows that the mean age of the sample is 29 years and the mean ROAA and ROAE are 2.21% and 14.66%, respectively. The standard deviation shows that most SMEs are within 1.29% and 8.21% of the mean ROAA and ROAE, correspondingly. The coefficients of skewness and kurtosis in table 1 show that net profit, ROAA, and ROAE are normally distributed (a normal distribution should have a skewness equal to zero and a kurtosis equal to 3, but the acceptable range of moderate skewness lies between 0.5 and 1 and -0.5 and -1 (Bulmer, 1979). However, total assets and total shareholders' equity displayed skewed results. To remedy this skewness, the corresponding data was log10 transformed. Hence, the adjusted variables with their new coefficients of skewness are displayed in the table below:

Table 2. Skewness before and after the log10 transformation of skewed variables

Variable	Skew before transformation	Skew after transformation
Total assets	1.51	0.04
Shareholders' equity	1.43	0.08

Source: our elaboration.

In reference to table 3, most of the SMEs disclosed at least three categories on a consolidated and yearly basis; also panel C shows that SMEs attributed greater importance to forward-looking and third parties disclosures. Both disclosures exhibited the highest scores in the extent of CFD in terms of sentence count, with 49.77% and 22.99% of the grand total sentence count, respectively.

Table 3. Descriptive statistics of disclosures (frequencies and mean scores)

Panel A - number of categories disclosed by SMEs

No. of categories	Over six years		2006		2007		2008		2009		2010		2011	
	No. of SMEs	%	No. of SMEs	%	No. of SMEs	%	No. of SMEs	%	No. of SMEs	%	No. of SMEs	%	No. of SMEs	%
4	7	43.75	1	6.25	3	18.75	2	12.50	3	18.75	4	25.00	4	25.00
3	5	31.25	6	37.50	5	31.25	7	43.75	8	50.00	6	37.50	7	43.75
2	3	18.75	6	37.50	5	31.25	4	25.00	4	25.00	4	25.00	2	12.50
1	1	6.25	3	18.75	3	18.75	3	18.75	1	6.25	2	12.50	3	18.75
0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total	16	100	16	100	16	100	16	100	16	100	16	100	16	100

Source: our elaboration.

Panel B – CFD (grand total)

Measurement unit	Grand total count	Average count	2006	2007	2008	2009	2010	2011
Sentences	4,637	773	409	762	518	936	1,203	809
Words	96,654	16,109	8,318	14,606	11,321	19,777	25,536	17,096

Source: our elaboration.

Panel C - extent of CFD consolidated over 6 years

Category	Extent Mean score	(sentences) %
Shareholders	6.42	13.28
Forward-looking	24.04	49.77
Board structure	6.74	13.95
Information to third parties	11.10	22.99
Total	48.30	100.00

Source: our elaboration

Note: Extent (%) is total sentence count for each category as a proportion of the grand total sentence count.

Additionally, table 4 shows that all sixteen SMEs reported forward-looking, thus exhibiting 100% availability over the six years, among which future profit forecast and economic-financial plan had the highest availability. The disclosure with the second highest availability of 88% was about board structure, with the skills and experiences category scoring the highest. Disclosure of information to third parties scored third with 81% availability with both company's key relationships with investors and quality disclosures scoring the highest.

Table 4. Descriptive statistics of disclosures (frequencies and mean scores)

Panel A - number of categories disclosed by SMEs

	Availability over six years		2006		2007		2008		2009		2010		2011		Consolidated	
	No. of SMEs	%	ST	WD	ST	WD	ST	WD	ST	WD	ST	WD	ST	WD	ST	WD
Shareholders:	**07**	**44**	**0.75**	**13.50**	**4.75**	**101.25**	**1.56**	**36.43**	**9.00**	**176.50**	**13.06**	**279.31**	**9.38**	**195.31**	**6.42**	**133.42**
Share price	01	06	-	-	0.50	11.63	0.06	0.94	-	-	0.31	7.06	0.69	11.19	0.26	5.14
Summary of financial data	05	31	0.06	1.75	1.44	31.19	0.25	6.69	1.06	22.81	3031	65.81	0.63	16.25	1.13	24.08
Qualification of the accountants	01	03	-	-	-	-	-	-	1.31	28.44	1.06	23.63	0.06	0.25	0.41	8.72
Earnings-per-share	05	31	0.56	9.56	2.13	37.19	0.06	1.06	2.63	42.13	3.19	73.50	3.75	70.13	2.05	38.93
Free cash flow	05	31	0.13	2.19	0.69	21.25	1.19	25.94	4.00	83.13	5.19	109.31	4.25	97.50	2.57	56.55
Forward-looking:	**16**	**100**	**15.00**	**304.81**	**24.31**	**474.25**	**18.38**	**372.13**	**26.88**	**539.31**	**35.13**	**709.38**	**24.56**	**504.00**	**24.04**	**483.98**
Sale expanding plan	11	69	0.81	16.19	2.13	38.00	0.56	11.50	1.00	17.75	3.00	69.75	0.75	18.81	1.38	28.67
Economic-financial plan	14	88	2.94	60.56	5.38	107.75	3.00	62.38	5.50	119.44	6.88	137.88	5.69	113.50	4.90	100.25
Project of cash flows	07	44	0.38	8.88	1.13	24.81	0.69	15.25	0.69	11.25	0.69	11.63	0.25	6.25	0.64	13.01
Earnings per share forecast	04	25	0.81	22.38	0.88	23.00	2.50	61.31	4.31	98.63	4.13	88.56	2.38	53.19	2.50	57.84
Future sales forecast	03	19	0.44	8.94	3.56	57.81	1.38	21.06	0.88	11.94	2.31	41.00	2.13	38.19	1.78	29.82
Planned capital expenditure	00	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Future profit forecast	16	100	6.88	129.6	8.63	168.00	8.06	157.13	11.25	214.69	11.88	234.50	10.25	208.13	9.49	185.34
Future loans forecast	02	13	0.06	1.88	0.19	5.69	0.25	2.81	0.13	0.88	0.75	11.81	0.38	5.81	0.29	4.81
Future securities impairment charges forecast	13	81	2069	56.38	2.44	49.19	1.94	40.69	3.13	64.75	5.50	114.25	2.75	60.13	3.07	64.23
Risk management process	00	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Board structure:	**14**	**88**	**3.56**	**67.06**	**5.81**	**105.94**	**4.88**	**98.50**	**8.81**	**188.06**	**11.56**	**288.69**	**5.81**	**123.25**	**6.74**	**135.25**
Skills and experiences	14	88	1.69	30.94	2.19	38.06	2.00	40.94	5.81	119.88	7.50	147.06	3.94	85.81	3.85	77.11
Directors' interests in competing businesses	12	75	1.75	33.13	3.44	64.44	2.50	49.00	2.06	41.25	3.56	69.69	1.31	25.19	2.44	47.11
Meetings	03	19	0.13	3.00	0.19	3.44	0.38	8.56	0.94	26.94	0.50	11.94	0.56	12.25	0.45	11.02
Information to third parties:	**13**	**81**	**6.25**	**134.50**	**12.75**	**231.44**	**7.56**	**202.31**	**13.81**	**332.19**	**15.44**	**378.63**	**10.81**	**245.94**	**11.10**	**254.17**
Credit standing	07	44	0.31	4.56	1.75	14.31	0.31	13.44	0.56	6.63	1.06	32.06	0.63	16.13	0.77	14.52
Bank loan, mortgage and their use	09	56	2.44	65.56	3.25	67.19	2.44	63.50	3.81	93.25	3.50	85.25	3.38	82.13	3.14	76.15
Quality	11	69	0.75	14.13	1.81	31.31	1.00	23.00	2.88	81.38	2.56	65.31	1.25	25.75	1.71	40.15
CRM	05	31	0.19	3.19	0.38	6.19	1.00	25.56	0.69	15.19	0.63	17.38	0.69	16.81	0.59	14.05
Sustainable investments	10	63	0.25	6.00	1.69	29.00	1.00	23.94	1.38	31.50	2.81	70.00	1.38	26.38	1.42	31.14
Job creation	04	25	0.13	1.06	0.25	1.31	0.06	0.13	0.31	6.75	0.75	21.06	0.38	8.69	0.31	6.50
Company's key relationships with investors	12	75	2.19	40.00	3.63	82.13	1.75	59.56	4.19	90.69	4.13	87.56	3.13	70.06	3.17	71.67

Source: our elaboration.

Note: ST denotes sentences and WD denotes words.

Table 5 displays the locations of financial disclosure in the annual reports over the years. The preferred locations are mostly the beginning and the middle of the annual reports.

Table 5. Location of financial disclosures in the annual reports

	Number of SMEs disclosing one or more themes						
	2006	2007	2008	2009	2010	2011	Consolidated*
Location of social disclosure:							
Chairman's Letter	5	7	8	8	7	5	12
Beginning of the annual report	13	14	14	15	16	15	16
Middle of the annual report	13	14	14	12	9	12	15
At the end of the annual report	13	12	12	12	9	10	14
As a separate report	0	1	1	1	1	1	1

Source: our elaboration.

*SMEs are included in the total if they disclose for at least one year.

Hypotheses testing

To identify the variables that predict the change in CFD and test the first five hypotheses, a multivariate regression model is built as follows:

$$CFD = \alpha + \beta_1 SIZE + \beta_2 FINPER + \beta_3 TYPE + \beta_4 AGE + \beta_5 EXP + \varepsilon$$

where:

CFD = corporate financial disclosure of Italian SMEs proxied by the log10 sentence count;

SIZE = size of SME proxied by log10 total assets and log10 total equity;

FINPER = financial performance of Italian SMEs proxied by net profits, ROAA and ROAE;

TYPE = type of SME (family-owned and not) as a dummy variable;

AGE = age of SME;

EXP = international exposure as a dummy variable;

α = the intercept;

β = the regression coefficients;

ε = the error term.

To account for potential problems, in particular, issues of multi-collinearity, a stepwise regression is performed. For that purpose, variables exhibiting low tolerance levels (tolerance < 0.2) and high variance inflation factors (VIF > 10) were excluded (Neter, et al. 1989). This resulted in the following (Table 6)

Table 6. Multivariate regression analysis and collinearity diagnostic

	Coefficient estimate	p-value	Tolerance	Variance Inflation Factor
Dependent variable: CFD (log$_{10}$ sentence count; N=96) *R=0.675; R^2=0.432; Adjusted R^2=0.419*				
Intercept	-1.808	0.001		
Assets	0.447	0.000	0.883	1.132
ROAA	-0.079	0.005	0.883	1.132
Excluded variables and (p-values): Age (0.156), Type (0.220), International exposure (0.440), ROAE (0.087), and Net Income (0.555).				

Source: our elaboration.

Table 6 exhibits acceptable tolerance and variance inflation factors (Neter, et al. 1989) and explains more than 40% of the variation in CFD.

Both size and financial performance variables, namely Total Assets and ROAA, show significant causal effect on the dependent variable.

In terms of hypotheses testing, hypothesis 1 related to the size can be retained for both the sign of the linear relationship and the effect, whereas hypothesis 2 is rejected for the sign and retained for causality. Consistent with the findings of Haji and Ghazali (2011), the results related to hypothesis 2 appear to indicate that as the recent financial crisis was developing, the financial performance of Italian SMEs was deteriorating, thus these companies opted for more CFD in order to uphold their reputation.

Moreover, age, type and international exposure do not seem to be determinants of CFD (reject hypotheses 3, 5 and 6).

Nevertheless, and although not preserved in the model as explanatory variables, the types and international exposure of SMEs are tested for variation of the levels of disclosure as follows:

Table 7. Mann-Whitney test over six years

	International exposure Z-Scores	Family business/ Non-family owned businesses Z-Scores
Measurement unit: sentence count		
All categories:	**-4.888****	**-0.089**
Shareholders	-3.754**	-0.846
Forward-looking	-4.748**	-1.119
Board structure	-3.067**	-1.611
Information to third parties	-3.160**	-2.923**

Source: our elaboration.
Note: Significant at the**1 and *5 percent levels, respectively (two-tailed).

The non-parametric Mann-Whitney test (and Kruskall-Wallis test in the following paragraph) as opposed to parametric test (i.e. t-test) is used to account for the differences in the number of observations in the sub-samples. From this angle, table 7 addresses hypotheses 4 and 7.

The findings show that the extent of CFD is significantly different between SMEs with international and no international presence across all CFD categories at the 1% level.

Descriptive statistics related to this table (mean rank) indicate that SMEs with international exposure provided a greater extent of CFD.

Consistent with the findings of van der Laan Smith et al. (2005), hypothesis 6 is retained. From a different perspective, there appears to be no significant difference in the extent of CFD between family and non-family firms except for third parties disclosure. This is not surprising because creditworthiness and sustainability of investments undertaken are a major part of third parties disclosure and they are also naturally embedded in the principles of family firms causes the strong interest by analysts (Ali et al., 2007).

With respect to hypothesis 8 addressing the variation of CFD during the different periods under investigation (pre-crisis: 2006-2007; crisis: 2008-2009; and post-crisis: 2010-2011), table 8 below shows no significant difference in the extent of CFD throughout these three periods.

Table 8. Kruskall-Wallis test over six years

	Pre-crisis, crisis and post-crisis periods Chi-Square
Measurement unit: sentence count	
All categories:	**1.492**
Shareholders	1.889
Forward-looking	0.957
Board structure	1.124
Information to third parties	-1.518

Source: our elaboration.

Note: Significant at the**1 and *5 percent levels, respectively.

This result is consistent with Myers (2014) but not with Haji and Ghazali (2011). Accordingly, hypothesis 8 is rejected for variation of CFD during the different periods under investigation (this is not to be confounded with the results of hypothesis 2).

6. Discussion

The following paragraphs discuss the methodology used and the sample characteristics and sampling.

This paper examined eight hypotheses related to determinants of CFD of Italian SMEs listed on AIM Italia and the possible associations between the extent of CFD and financial/non-financial variables.

Several findings emerge: the size and financial performance of Italian SMEs are significant explanatory variables of the quantity of financial disclosure whereas the age, type and international exposure of these SMEs appears to play a minor insignificant role in determining the extent of CFD. Interestingly, the results related to testing the variation in disclosure between SMEs with international exposure and those with no such presence show a significant variation. The same was not observed for the type of SMEs or the different periods under investigation.

In general, the findings indicate that the agency and proprietary cost theories play a vital role in explaining the quantity of financial disclosure by Italian SMEs. Despite the fact that there are no clear CFD guidelines in Italy, the SME world is becoming increasingly aware of the financial issues especially after the global financial crisis; thus, it is not surprising to observe that the largest and most visible SMEs in that country are gradually taking financial disclosure seriously and are trying to address the interests and concerns of their stakeholders.

Finally, the analysis reflects a sample of SMEs that is not entirely immersed in financial disclosure practices, but interested enough to embrace and develop this branch of corporate transparency.

This paper has a number of theoretical and practical implications. First, it reinforces the body of research and empirical studies concerning the quality and quantity of CFD in developed markets and highlights the importance of CFD in the business world within the framework of agency and proprietary cost theories. In addition, the results of this study could assist Italian SMEs and bankers in integrating CFD in their corporate strategies and help the local and international business communities in understanding the characteristics of CFD in Italy. Finally, corporate financial disclosure in the Italian context would provide a basis for future research and allow academics to further investigate this concept in the context of other markets (so called emerging markets).

References

Alfraih, M.M., & Almutawa, A.M. (2014). Firm-Specific Characteristics and Corporate Financial Disclosure: Evidence from an Emerging Market. *International Journal of Accounting and Taxation*, 2(3), 55-78.

Ali, A., Chen, T.Y., & Radhakrishnan, S. (2007). Corporate disclosures by family firms. *Journal of Accounting and Economics*, 44(1-2), 238-286.

Aljifri, K., Alzarouni, A., Ng, C., & Tahir, M.I. (2014). The Association Between Firm Characteristics and Corporate Financial Disclosures: Evidence from UAE Companies. *The International Journal of Business and Finance Research*, 8(2), 101-123.

Al-Shammari, B., Brown, P., & Tarca, A. (2008). An investigation of compliance with international accounting standards by listed companies in the Gulf Co-Operation Council member states. *The International Journal of Accounting*, 43(4), 425-447.

Askary, S., & Jackling, B. (2005). Corporate financial disclosure practices in Asian and Middle Eastern countries. *Asian Review of Accounting*, 13(1), 45-72.

Bushman, R.M, & Smith, A.J. (2001). Financial accounting information and corporate governance. *Journal of Accounting and Economics*, 32(1-3), 237-333.

Buskirk, A. (2012). Disclosure Frequency and Information Asymmetry. *Review of Quantitative Finance and Accounting*, 38(4), 411-440.

Demir, V., & Bahadir, O. (2014). An Investigation of Compliance with International Financial Reporting Standards by Listed Companies in Turkey. *Accounting and Management Information Systems*, 13(1), 4-34.

Depoers, F. (2000). A cost-benefit study of voluntary disclosure: some empirical evidence from French listed

companies. *European Accounting Review*, 9(2), 245-263.

Farina, V. (2009). Corporate Disclosure Determinants: A Cross-Country Investigation. In A. Carretta, F. Fiordelisi, G. Mattarocci (Ed.), *New Drivers of Performance in a Changing Financial World* (pp. 220-234), Palgrave Macmillan, London.

Forker, J. (1992). Corporate governance and disclosure quality. *Accounting and Business Research*, 22(86), 111-124.

Gibb Dyer, W. (2006). Examining the "Family Effect" on Firm Performance. *Family Business Review*, 19(4), 253-273.

Glaum, M., & Street, D.L. (2003). Compliance with the Disclosure Requirements of Germany's New Market: IAS Versus US GAAP. *Journal of International Financial Management & Accounting*, 14(1), 64-100.

Hackston, D., & Milne, M.J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing & Accountability Journal*, 9(1), 77-108.

Haji, A.A., & Ghazali, N.A.M. (2011). The influence of the financial crisis on corporate voluntary disclosure: some Malaysian evidence. *International Journal of Disclosure and Governance*, 9(2), 101-125.

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.

Khurana, I.K., Pereira, R., & Martin, X. (2006). Firm growth and disclosure: An empirical analysis. *Journal of Financial and Quantitative Analysis*, 41(21), 357-380.

Kim, Y., Lee, J., & Yang, T. (2013). Corporate Transparency and Firm Performance: Evidence from Venture Firms Listed on the Korean Stock Market. *Asia-Pacific Journal of Financial Studies*, 42(4), 653-688.

Lambert, R., Leuz, C., & Verrecchia, R.E. (2007). Accounting information, disclosure, and the cost of capital. *Journal of Accounting Research*, 45(2), 385-420.

Lardon, A., & Deloof, M. (2014). Financial Disclosure by SMEs Listed on a Semi-Regulated Market: Evidence from the Euronext Free Market. *Small Business Economics*, 42(2), 361-385.

Malone, D., Fries, C., & Jones, T. (1993). An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry. *Journal of Accounting Auditing and Finance*, 8(3), 249-273.

Meek, G., Roberts, C., & Gray, S. (1995). Factors influencing voluntary annual report disclosures by US, UK and continental European multinational corporations. *Journal of International Business* Studies, 26(3), 555-572.

Myers, T. (2014). Financial Transparency and Disclosure: China Progress on Corporate Governance. *Journal of International Business Ethics*, 7(1), 3-18.

Nassreddine, G. (2016). Determinants of financial information disclosure: A visualization test by cognitive mapping technique. *Journal of Economics, Finance and Administrative Science*, 21(40), 8-13.

Ness, K.E., & Mirza, A.M. (1991). Corporate social disclosure: a note on a test of agency theory. *British Accounting Review*, 23(3), 211-217.

Neter, J., Wasserman, W., & Kutner, M. (1989). *Applied Linear Regression Models*. Boston: Irwin.

Ojeka, S.A., Mukoro, D.O., & Kanu, C. (2015). Does Financial Reporting Disclosures Enhance Firm Financial Performance in the Nigerian Manufacturing Companies? *Mediterranean Journal of Social Sciences*, 6(6), 332-338.

Prat, A. (2005). The wrong kind of transparency. *American Economic Review*, 95(3), 862-877.

Raffournier, B. (1995). The determinants of voluntary financial disclosure by Swiss listed companies. *The European Accounting Review*, 4(2), 261-280.

Sahore, N.S., & Verma, A. (2017). Corporate Disclosures and Financial Performance of Selected Indian Manufacturing and Non- Manufacturing Companies. *Accounting and Finance Research*, 6(1), 119-132.

van der Laan Smith, J., Adhikari, A., & Tondkar, R.H. (2005). Exploring differences in social disclosures internationally: a stakeholder perspective. *Journal of Accounting and Public Policy*, 24(2), 123-151.

Vilaseca, A. (2002). The Shareholder Role in the Family Business: Conflict of Interests and Objectives Between Nonemployed Shareholders and Top Management Team. *Family Business Review*, 15(4), 299-320.

Watts, R.L., & Zimmerman, J.L. (1990). Positive accounting theory: a ten-year perspective. *The Accounting Review*, 65(1), 131-156.

Zahra, S.A. (2005). Entrepreneurial Risk Taking in Family Firms. *Family Business Review*, 18(1), 23-40.