

THE EFFECT OF PYRAMIDAL STRUCTURES ON EARNINGS MANAGEMENT: EVIDENCE FROM ITALIAN LISTED COMPANIES

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Abstract

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In recent years, business administration researchers and economic operators have become increasingly interested in ways to protect minority shareholders from opportunistic behaviour by the majority shareholders in control of company management. Scholars have further extended their attention to the systems of Corporate Governance after the failures and financial scandals involving some important international groups such as Enron (United States), Parmalat, and Giacomelli (Italy). These events have focused attention on the opportunistic use of technical discretion when drawing up financial information in the presence of incentives or subsidies linked to the expropriation of potential wealth generated through the Corporate Governance structure adopted by companies. Against this background of applying emphasis to the information included in financial statements as an important tool for the management of Corporate Governance conflicts, this paper intends to analyse the relationship between the practices of earnings management and the adoption of a pyramidal group structure within the Italian financial market. In particular, the contribution aims to prove whether earnings manipulation practices have been adopted with a higher frequency and a greater intensity within the listed pyramidal groups as well as whether any statistical relationships exist between the pyramidal structure and the earnings management phenomenon.

Keywords: Corporate Finance and Governance, Gopalan and Jayaraman Model, Earnings Management, Pyramidal Groups, IAS/IFRS Adoption

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1. INTRODUCTION

In recent years, business administration researchers and economic operators have become increasingly interested in ways to protect minority shareholders from opportunistic behaviour by the majority shareholders who control company management.

Scholars have further extended their attention to the systems of Corporate Governance after the failures and financial scandals involving some important international groups such as Enron (United States), Parmalat, and Giacomelli (Italy). These events have focused attention on the

opportunistic use of technical discretion when drawing up financial information in the presence of incentive or/subsidies linked to the expropriation of potential wealth generated through the Corporate Governance structure adopted by companies (Man and Brossa 2013; Colli and Colpan 2016; Türegün and Kaya 2016).

Against this background of applying emphasis to the information included in financial statements as an important tool for the management of Corporate Governance conflicts, this paper intends to analyse the relationship between the practices of earnings management and the adoption of a

pyramidal group structure within the Italian financial market.

The constitution of pyramidal groups is widespread, and it is one of the main separation mechanisms between ownership and control of company in Italy. Through this mechanism the majority shareholder manages to increase power of control and/or expand the group dimensions, on equal investment terms. The pyramidal group is usually controlled by a person, or a family, lying at the apex, and through "falls shareholdings" in listed (or unlisted) companies, each member possesses shares in the subsequent companies, gradually descending the pyramid. In substance, the controlling shareholder supervises a number of operational companies through the separation existing between a controlling owner and non-controlling shareholder.

The specific goal in adopting a pyramid structure is to separate control from capital ownership, through the establishment of so-called "Chinese boxes" - resulting in companies within which the active balance sheet is predominantly represented by a controlling stake in another listed or non-listed company, while in financing sources a large proportion of assets may be the capital made available by minority shareholders.

The profitability of such structures is therefore associated with the collection of dividends distributed by the company operating downstream of an ownership chain. In each *Chinese box* there are some minorities and the number of Chinese boxes affects the distribution of dividends (Di Carlo 2007).

Amplification of control as compared to the invested resources achieved through the adoption of a pyramid structure is based on the use of a lever mechanism derived from the fraction of equity held by a parent company in the subsidiaries that form the base of the corporate investment pyramid (Tang and Chang, 2015).

Several studies (Mengoli, Pazzaglia and Sapienza 2007) attempted to measure the level of this relationship in Italy in the period between 1998 and 2005, showing how the percentage of voting rights decreased while that of cash flow rights increased during this period of time, reflecting the overall reduction in the separation between ownership and control. This is further confirmation of the reduction in the use of pyramids in our country.

Even in the case of pyramidal groups, empirical evidence shows high index values which do not seem to support the idea of using this tool for the sole purpose of separating ownership from control, suggesting that there are other motives lying behind the use of this mechanism.

For the reasons described, the use of a pyramidal structure is present worldwide; in Europe, it is present in many countries and, despite being the subject of controversy and debate regarding the need to combat the phenomenon, only a few countries have adopted measures to limit its use (Beuselinck and Deloof, 2014; Bona-Sánchez, Pérez-Alemán and Santana-Martin, 2014)

The aim of the paper is to prove whether earnings manipulation practices have been adopted with a higher frequency and a greater intensity within listed pyramidal groups, and whether there are statistical relationship hypotheses between the

pyramidal structure and the earnings management phenomenon.

2. LITERATURE REVIEW

Earnings management is the expression used to define the phenomenon of manipulation of accounts documentation, but negative connotations should not necessarily be implied.

According to Schipper (1989), earnings management is a deliberate intervention in the process of reporting financial data with the intent of personal gain; Healy and Wahlen (1999) state that earnings management occurs when managers intervene in the accounting and mislead stakeholders with regard to the economic performance of the company or influence the consequences of contracts that depend on reported accounting values.

According to Giroux (2004), earnings management may include a number of choices and actions, ranging from conservative accounting to accounting fraud, through aggressive and/or neutral accounting, over a wide range of accounting choices.

Bhattacharya, Daouk and Welker (2003) assert that earnings management should be related to the concept of earnings "opacity", by identifying opacity measures related to earnings aggressiveness, that is when the profits are the result of risky, or too optimistic accounting choices, or measures related to the smoothing of income (earnings smoothing), when information relative to earnings is altered to artificially align actual company results to market expectations.

Richardson et al. (2001) affirm that earnings quality is measured by the degree to which a trend persists over a future period of time. Poor earnings quality makes financial statement data unreliable, and the analysis and assessment of a company in which to invest is based on unreliable data, therefore increasing the uncertainty and risk of the investment.

According to Bellovary, Giacomino and Akers (2005), reported quality gains of corporate balance sheets are the profits that reflect real company profits and as such are capable of predicting and anticipating future profits. The basic reason for the use of earnings management practices must be identified through the concept of information asymmetries between the editor and the reader of the financial statements, and this allows the editor to manipulate the book values, sometimes through disallowed practices, with a generally slight probability of these changes being discovered.

Healy and Wahlen (1999) place the motivations for the practice of earnings management into the four following categories: (i) reasons arising from the regulation of the sector; (ii) reasons that lead companies to not demonstrate a high return in order to avoid checks and investigation by regulators and/or intervention by antitrust bodies; (iii) reasons related to tax planning and targeted towards a reduction in taxable income; and (iv) motivations arising from the expectations and the assessment of capital markets.

Myers, Myers and Skinner (2006) show that the reward for quarterly gains that increase steadily and regularly is higher than the increase measured over a one year period. Increasing profits, even

minimally, actually has an important positive psychological impact on investors, and managers take this into account when they draw up and later communicate the financial results.

Empirical evidence reveals that some managers apply a time differential for gains that fall short of the goals set for a certain period in order to have a better chance of hitting these set targets in a subsequent period or periods. Postponement of results can also be induced when the maximum prizes that may be awarded to managers calculated on the basis of the results themselves have been reached (Guidry, Leone and Rock, 1999).

According to DeGeorge, Patel and Zeckhauser (1999), some managers are not inclined to communicate fluctuating results that have peaks in order to avoid the risk of excessively raising future goals and making them overly difficult to achieve.

In other studies (Bagnoli and Watts, 2000), the practices of earnings management within a particular company occur with greater intensity when it is expected that the managers of rival companies engage in such practices.

As pointed out by Watts and Zimmerman (1978), debts represent an incentive for the adoption of earnings management practices, as the failure to meet constraints may lead to the implementation of forms of accounts management in order to avoid non-compliance with contractual requirements – resulting in additional costs.

De Fond and Jambalvo (1994) have developed a search relating to a sample of companies that have violated bank covenants which showed that the breach earnings were manipulated while on the rise during the preceding year.

Additionally, violation of debt contracts often leads to a revision of the relationship conditions and, in some cases, the bank requesting the loan repayment, which can lead to bankruptcy of the borrowing company (Lev, 2003).

Feng (2004) shows how the practices of earnings management could be induced by motives of an informative nature. This involves the use of specific information in the manager's possession, which, by means of account manipulation, report results that exceed expectations.

The techniques used to identify the practices of earnings management involve accounting principles, the rules of the balance sheet, and the fundamental relationship between cash and non-cash business results, the differences between which come from adjustment to the financial statement (accruals) consisting of annual costs and revenues of the year, but in the absence of a monetary event.

Settling the balance sheet in order to determine the business parameters to be communicated to the market has the objective of making profits more expressive of actual company dynamics as compared to the simple liquidity trend conveyed by a cash flow.

Determination of financial statement accruals is not easy, and requires the use of estimates, assumptions and subjective assessments with an inherent degree of subjectivity and discretion that allows the editor to adopt manipulative practices when drawing up a balance sheet. For this reason the figure relating to accruals, even though considered relevant to analysts from a budgetary

point of view, is less reliable than an appraisal of the financial movements that actually took place.

Due to determination difficulties and the partial discretion given to balance sheet editors, research into earnings management area has given great importance to the role of accruals as the element through which practices of earnings management can be implemented.

Relevant distinction is made between the discretionary component (discretionary accruals) and the non-discretionary component (non-discretionary accruals).

The non-discretionary component of the accruals is the aspect connected to industry conditions (e.g. growth rate, operating cycle length, the average payment time), while the discretionary component refers to conditions that may be controllable by management and reported, for instance, to determine costs and revenues pertaining to depreciation politics that account for management incentives.

Research shows the unanimously shared opinion that it is possible to utilise the level of accruals (or discretionary accruals) as an indicator of the accounts manipulation phenomena.

In literature we can find that different methods are used to measure accruals (Dechow, Sloan and Sweeney, 1995; Dechow, Ge and Shrand 2010). There are time-series based methods that estimate the expected level of non-discretionary accruals that differ from those used to calculate or determine discretionary accruals.

Other methodologies are based on the cross-sectional type in which a normal level of accruals is defined by the accruals of a comparable body and referred to the same period. Both approaches have the limitation that they are liable to variation due to market circumstances.

Healy (1985), in a seminal paper for the subject literature has formulated the following equation to measure up to the earnings management: "Net profits = cash flow + accruals".

Based on this relation, accruals are calculated as the difference between earnings and the cash actually earned by the company; high accruals denote that the profits are poorly based on the actual liquidity and therefore potentially more at risk.

DeAngelo L., DeAngelo H. And Skinner (1994) focus instead on the change in accruals from year to year, assuming that these normally remain constant over time and that if such a trend is not followed a "random walk" may be seen in the presence of earnings management. According to the author, for the relevant variation of accruals it may be assumed that some evaluations and some estimates have been changed considerably, potentially also with the aim of manipulating company results.

The Collins and Hribar method (2002) is the most simple and intuitive model, and it is derived from the cash flow statement arriving from the calculation of total accruals as the difference between earnings and operating cash flow.

Sloan (1996) develops a more complex model based on transactions that determine the accruals in greater depth. The model arrives at determination of accruals through the use of the information derived from the balance sheet income statement by analysing the changes in working capital. This

model, defined as a balance sheet approach, is widely credited in literature and suggests standardizing profits, accruals and cash flows for the purpose of comparison with other companies over the same or different time periods.

The empirical research of Kasznik (1999) shows how writers use discretionary accruals with the goal of increasing results that otherwise would not achieve their forecast levels.

Sloan's research of 1996 shows that increasing accruals determine a progressive deterioration in earnings and stock returns, leading to greater risk of earnings management; in addition, research shows that companies with high accrual levels tend toward overestimation compared to the real substance of the profits.

According to general opinion, companies with a high accruals component would be at a higher risk of earnings management, but this is not always true because accruals of a given year may be the result of management policies. Considering the case of a company suffering a decline in sales, thereby resulting in higher inventory numbers; management reasoning regarding the average collection time of receivables, deriving from the desire to push sales, may result in operations that are added to the accrual component but do not constitute accounting manipulation (Beneish 1997).

Jones (1991) proposes a model that omits the hypothesis of constancy for non-discretionary accruals and tries to verify the effects of the change in the company economic situation through non-discretionary accruals, which are estimated through an Ordinary Least Square (OLS) regression method that uses changes in sales and assets as explanatory variables.

Dechow, Sloan and Sweeney (1995) implemented a modified version of the Jones model (1991), starting from the basic consideration that since sales are an element through which to engage in earnings management practices via the artificial increase in receivables, sales are expected to be corrected by credits variation.

Richardson et al. (2001) found a positive correlation between the level of accruals and audit done by the SEC. De Fond and Park (2001) adopt a model based on abnormal working capital accruals determined in basis of the difference between the working capital and sales completed during the period.

Leuz, Nanda and Wysocki (2003) developed a model based on the two variables of income smoothing and magnitude accruals, proceeding to determine accruals on the basis of changes in working capital, net of depreciation.

As described in the next section, this model is used in the empirical analysis developed for the calculation of accruals as directed by the variables of working capital that are most appropriate in contexts such as Italy where the financial market is not adequately developed, and the number of observations (firms) is not very large.

Literature concerning earnings management and pyramidal groups differ from the research stream on agency theory, and the conflict between majority shareholders and minority shareholders (Zingales 1994; Burkart and Lee 2008; Ratnawati et al. 2016): it refers to the mismatch between the owner(s) and the power of control over those who

can encourage opportunistic behaviour aimed at extracting private benefits at the expense of minority shareholders (Bebchuck, Kraakman and Triantis 2000).

Crucial contributions by Dechow, Sloan and Sweeney (1995) and Dechow and Skinner (2000), have been identified as particularly important among the causes of earnings management and company governance, highlighting the role of pyramidal groups where members of government can be induced to satisfy their private benefits through earnings management, to the detriment of the minority shareholders.

According to Klassen (1997), in contexts in which a high level of separation between ownership and control exists, the company suffers lower pressure from the financial markets with respect to the objectives of maximizing value, and managers may pay less attention to the results in order to limit the tax burden.

Jung and Kwon (2002) start by considering that the practice of earnings management decreases with the reduction of the conflict between managers and owners, due to more and better information being requested by owners.

According to Leuz, Nanda and Wysocki (2003) and Kim and Yi (2006), where there is a reduced protection of investors, in companies where there is a high level of separation between ownership and control, the practices of earnings management are greater.

Several American studies have analysed the association between the percentage of independent non-executive members on the board of auditors and some indicators of "quality reporting", such as the manipulation of revenues (Klein 2002). The author has also analysed the relationship between the presence of independent directors in the control and earnings management, finding a significant difference between a completely independent board of auditors and a 50% independent board of auditors. Becker et al. (1998), however, show that the presence of an audit firm belonging to the "Big 4" discourages companies to undertake policies of earnings management. Beasley (1996) observes that the probability of accounting fraud decreases in proportion to the number of non-executive directors on the board.

3. RESEARCH METHODS

A deep review of the earnings management literature and some insights into the ownership structure of Italian companies listed on the stock exchange suggested use of an empirical analysis with main research questions summarized as follows:

1. Analyse the influence of the corporate structure on earnings management practices;
2. Evaluate the effects of the international accounting standards IAS/IFRS on the earnings management practices;
3. Find which indicators and parameters derived from the financial statements can be considered predictive of earnings management practices.

In order to address the research questions, the Gopalan and Jayaraman model (2012) was adopted; this model derives from the Leuz, Nanda and

Wysocki model (2003), which in turn originates from the works on earning management detection by Healy and Wahlen (1999) and Dechow and Skinner (2000). The Gopalan and Jayaraman model measures the earnings management using two variables: income smoothing and accruals magnitude.

From a statistical point of view, research questions were addressed through univariate, bivariate and multivariate analyses (principal component analysis and multiple regression).

3.1. The Gopalan-Jayaraman model

The Gopalan and Jayaraman model (2012) relies on two indicators to detect earnings management practices: income smoothing and magnitude of accruals. Income smoothing measures the intensity with which accounting data are "made opaque" (Leuz, Nanda and Wysocki 2003; Bhattacharya, Daouk and Welker 2003; Lang, Maffett and Lins 2011), and the asymmetry between the financial information required by the financial markets and the information actually provided (Jayaraman 2008). The second indicator (magnitude of accruals) measures the intensity of the accruals.

Income smoothing (called EM1) is defined as the relationship between the standard deviation of operational incomes (Income) and the standard deviation of the operational cash flows (CFO) (Leuz, Nanda and Wysocki 2003). Both variables are scaled by lagged total asset to avoid heteroscedasticity.

$$EM1 = \frac{\sigma(\text{Income})}{\sigma(\text{CFO})} \quad (1)$$

where:

EM1 - income smoothing;

σ (Income) - income standard deviation;

CFO - operating cash flows standard deviation.

The operating cash flows are the difference between the operative incomes and the accruals:

$$ACC_{it} = [\Delta CA_{it} - \Delta Cash_{it}] - [\Delta CL_{it} - \Delta STD_{it}] - Dep_{it} \quad (2)$$

where:

ACC_{it} - accruals fiscal year;

ΔCA_{it} - current assets variation between two fiscal years;

$\Delta Cash_{it}$ - cash and equivalents variation between two fiscal years;

ΔCL_{it} - current liabilities variation between two fiscal years;

ΔSTD_{it} - short terms debts variation between two fiscal years;

Dep_{it} - fiscal year depreciation.

Using the working capital to calculate accruals follows the approach that the working capital parameters are more difficult to detect, so they are more "EM eligible" than other financial statement parameters (Peasnell, Pope and Young 2005). Moreover, the working capital parameters are more suitable to the Italian context where the financial market is not particularly well developed and the number of companies not very high.

According to Gopalan and Jayaraman, EM1 values should be interpreted as follows: "smaller

values of EM1 are indicative of greater income smoothing as the volatility of earnings (the numerator) is lower than the volatility of cash flows (the denominator)" (2012, 12).

The second proxy of earnings management is the magnitude of accruals (EM2): higher values of EM2 indicate higher EM practices and lower earnings quality (Leuz, Nanda and Wysocki 2003).

Gopalan and Jayaraman (2012) use the following formula to calculate EM2:

$$EM2 = \frac{|\text{Acc}|}{|\text{CFO}|} \quad (3)$$

where:

EM2 - accruals magnitude;

|\text{Acc}| - accruals absolute value;

|\text{CFO}| - operating cash flow absolute value.

The magnitude of the accruals derives from the rate between the absolute value of accruals and the absolute value of the operative cash flows. The accruals normalization through the operative cash flows is appropriate to reduce the influence of the economic performance on the accruals calculation.

The last step of Gopalan and Jayaraman model (2012) is the calculation of an index, EM, to detect earning management practices by combining EM1 and EM2 through principal component analysis.

EM values should be interpreted as follows: larger values of EM denoting financial statements that are less informative about economic reality (Gopalan and Jayaraman, 2012).

3.2. Research Design

The model of Gopalan and Jayaraman (2012) has been applied to a group of companies listed on the Italian Stock Exchange as of December 31st 2007. From an operational point of view, entire lists of non-banking groups listed on the Italian Stock Exchange and the Consob website have been considered; moreover, according to the ownership structure, companies were classified as pyramidal or non-pyramidal (Intrigano 2009). For each pyramidal group, EM1 and EM2 have been calculated using the consolidated financial statement. The financial data are taken from the following sources: AIDA database; Official information from companies; Consob; Italian Stock Exchange and the Bank of Italy.

Data analysis was performed using the financial statement parameters for the period 2003 - 2007, and is based on a "rolling window" model. For each year the financial information regarding each company summarizes the relative data for three years; for this reason the information covers a longer period (from 2001 to 2007). Some groups have been excluded from the analysis due to lack of financial information. The final sample is made up of 97 groups, of which 16 are pyramidal and 81 non-pyramidal.

3.3. The influence of the corporate structure on the adoption of earnings management

The application of the Gopalan and Jayaraman model (2012) produced the results shown in Table 1, which reports the following information, divided

between the pyramidal and non-pyramidal groups: mean and median of the proxy parameters (EM, EM1, EM2); mean and median of the control parameters (Operational cycle, Days payable, Capital investment ratio, Leverage, Sales growth, Firm size, ROA).

Table 1. Descriptive Statistics: mean and median

	Pyramidal Group		Not Pyramidal Group	
	Mean	Median	Mean	Median
EM1	0,46	0,21	0,57	0,38
EM2	1,02	0,59	1,44	1,43
EM	0,23	0,48	-0,05	0,64
Operative cycle (ds)	301	116	235	168
Days payable (ds)	185	94	122	92
Capital investment ratio (n)	6,76	1,9	6,32	1,31
Leverage (%)	0,21	0,18	0,17	0,14
Sales growth (%)	0,19	0,08	3,08	0,08
Firm size (n)	22,04	22,01	19,64	19,56
ROA (%)	0,03	0,03	0,01	0,02

Note: **Significance at 5%; * Significance at 10%. Statistical Significance was tested through the t-test and the Wilcoxon test

The average value of EM is higher for the pyramidal groups (0,23) than for the non-pyramidal groups (-0,05). The same results for the EM2 parameters: higher in the pyramidal groups (1,02) than for non-pyramidal ones (0,82). The value of EM1 is, on the contrary, higher in the non-pyramidal groups. In any event, as stated by Gopalan and Jayaraman (2012), smaller values of EM1 underline higher presence of income smoothing; furthermore, also the EM1 median value of the pyramidal groups shows lower value (with $p < 0,10$) than the median of EM1 of the non-pyramidal groups, confirming a higher incidence of income smoothing. The proxy parameters EM, EM1 and EM2 are not statistically significant. However, the exploratory nature of the research allows us to state that, in the analysed sample, there is a higher propensity to practice earnings management in pyramidal groups. From a statistical point of view, significant differences between the two groups are shown for the control parameters: operational cycle, days payable, capital invested ratio and firm size.

3.4. The influence of the IAS / IFRS on earnings management

The second research question is to analyse the trend of EM according to the adoption of the international accounting standards IAS / IFRS, starting from the financial exercise 2005.

Table 2 shows that the adoption of international accounting standards seems to go along with an increase in earnings management practices. This result poses some questions about the degree of discretion in the evaluations and the reliability of the current practices to determine the fair value for IAS / IFRS in comparison to the certainty of the principle of the cost.

Table 2. EM variation according to the adoption of IAS/IFRS

	Pyramidal Group		Not Pyramidal Group		Difference	
	OIC	IAS	OIC	IAS	OIC	IAS
EM	-0,001	0,128	-0,008	-0,017	0,006	0,145

Observing the ownership structure, for the pyramidal groups the adoption of the IAS / IFRS coincides with an increase in the EM values, while for the non-pyramidal groups a decrease is observed.

The results would allow inference that the adoption of international accounting standards has worsened the quality of the profits in the pyramidal groups, while it has improved the quality in the non-pyramidal groups. Therefore, in contexts with scarce investor protection the transition to IAS / IFRS does not improve the quality of profits (Soderstrom and Sun 2007; Sunder 1997; Daske et al. 2008).

3.5. The predictors of the earnings management practices

The third research question required a deeper analysis of the relationship between the adoption of the pyramidal structure and the practices of earnings management. To address this question, it is necessary to consider other elements that could influence earnings management in addition to the group structure.

According to literature (Dechow 1994; Dechow and Dichev 2002; Hribar and Nichols 2007), the parameters that might influence EM are: operational cycle (operational cycle), supplier/customer outstanding days and inventory turnover, the intensity of the invested capital (capital invested ratio), leverage, and the sales growth rate (sales growth) the company size (firm size) and the operational profitability (ROA).

The analysis of the statistic relationship between earnings management practices and the other variables was performed through multiple regression with EM as a dependent variable, while the independent variables are the structure (identified by a variable dummy: pyramidal groups or not), and the previously described control parameters. The multiple regression analysis is performed through the Ordinary Least Squares method.

The multiple regression equation may be summarized as follows:

$$EM = \beta + \beta_1 \text{Piramyd}_{\text{struc}} + \beta_2 \text{controls} + \mu t \quad (4)$$

EM = earnings management proxy; β = regression coefficient; Piramid_struc = pyramidal structure presence; Controls = control parameters; μt = constant

Table 3. Multiple Regression Analysis

Parameters	Beta standardized coefficients
Pyramidal	0,098
	(-0,824)
Operative cycle (ds)	0,039
	(-0,331)
Days payable (ds)	-0,046
	(-0,378)
Capital investment ratio (n)	0,049
	(-0,461)
Leverage (%)	0,224
	(-2,082)**
Firm size (n)	-0,015
	(-0,125)
ROA (%)	0,006
	(-0,55)
Observation	485
R ²	6,69%

Table 3 shows the results of the multiple regression analysis: Standardized beta-coefficient; significance coefficients and R squared.

3.6. Main findings

In synthesis, the application of the Gopalan and Jayaraman model to the Italian data showed that:

1. Pyramidal groups show a higher propensity to adopt earnings management;
2. The adoption of the international accounting standards IAS / IFRS seems to increase the practices of earnings management in the pyramidal groups, and to decrease the practices of earnings management in the non-pyramidal groups;
3. There is no significant statistical relationship between the pyramidal structure and the practices of earnings management, while there is a significant relationship between the EM and the indebtedness index.

The absence of a statistically significant relationship between the structure and earnings management seems to be in contradiction with the bivariate analysis between EM parameters and the structure of the groups (see table 1). However, it would be inaccurate to say that there are no differences between pyramidal groups and non-pyramidal groups regarding the propensity to adopt practices of earnings management, as this difference has been empirically observed.

The results of the multiple regression analysis must be considered indicative of the fact that the presence of a pyramidal structure cannot be the only proxy of a business behaviour devoted to the practices of earnings management.

Moreover, the statistical relationship between the indebtedness and the practices of earnings management is confirmed by those scholars studying accounting manipulation with respect to the covenants connected to indebtedness (De Fond and Jiambalvo 1994; Wang and Lin 2013).

The effects of the adoption of international accounting standards in the pyramidal groups could confirm the idea that, in those contexts with lower levels of investor protection, the transition to IAS / IFRS does not improve the earnings quality (Soderstrom and Sun 2007; Sunder 1997; Daske et al. 2008).

4. CONCLUSIONS AND FURTHER DEVELOPMENT

The research aimed at observing the mechanisms of accounting manipulation in particular Corporate Governance contexts where, due to the adoption of the pyramid structure, there has been a trend towards greater possible earnings management practices.

The study falls within the broad line of emerging research related to the relationship between the ownership structure of Italian companies listed on the stock exchange and financial information, in order to highlight the effects in terms of accountancy handling by ownership concentration and the separation between voting rights and cash flow rights.

Despite the contraindications of the use of the CEM, and the regulatory measures introduced in order to reduce their manifestations, these mechanisms still characterize the Corporate

Governance system in Italy. While in Anglo-Saxon countries the prevailing "public company" is not controlled by a single shareholder or by a small group, in Italy cultural and structural elements have developed national capitalism and, as a result, there is a frequent spread of deviation from the proportionality principle of "one share - one vote", and consequent opportunistic behaviour arising from proprietary control.

Moreover, in Italy the separation between cash-flow rights and voting rights is particularly pronounced because a single shareholder (or a small group of shareholders), even when less cash-flow rights are held, can exercise a majority of the voting rights within the Board of Directors and influence the strategic and operational decisions of the group.

Pyramids are the mechanisms typically used in Italy in order to achieve this kind of separation. In such contexts it is possible that these mechanisms may adversely affect Corporate Governance at the expense of transparency and the protection of minority rights, and may lead to the occurrence of forms of extraction of private benefits through control of shareholders.

On the one hand, the presence of governance rules that protect all parties involved, including minority shareholders, increases the value of listed companies and promotes the listing of new companies and the development of the financial market; on the other hand, the absence of accounting manipulation and the quality of financial reporting can lead to significant benefits in terms of cost of capital and of value determination.

However, despite recent reforms in our country, the opportunistic use of structures exposed to the use of proprietary separation mechanisms aimed at exercising control through the holding of minority shares is still significant, and worthy of investigation.

Proceeding in this direction, the developed study aims to provide an overview of the European context with regard to the use of the separation mechanisms between ownership and control, focusing, as regards the Italian context, on the relationship between the pyramidal structure and the manipulation of accounting phenomena.

The research, based on data relating to the ownership structures of the companies listed on the Italian stock exchange in 2007, data which shows the consistency of the pyramidal groups compared to non-pyramidal groups, has set up an investigation of detecting earnings management through the application of the Gopalan and Jayaraman (2012) model for the observation period 2003-2007.

The temporal aspects of reference that were identified in consideration of the available data regarding ownership structures are more concrete than at the beginning of the research activities, where selecting the model to detect earnings management was made in consideration of the characteristics of the contextual object of analysis and of the observation period of fiscal data.

With regard to possible further research developments with respect to the line of study as a whole, the survey has several limitations both from a theoretical and empirical point of view.

In the first place, it is responsible for examining a single mechanism of separation

between ownership and control, namely the pyramidal structure, neglecting the effects of other CEM on the handling amount.

In addition, the analysis refers to a limited period of observation that should ideally be extended in order to perform the test over a broader observation period.

Future research could overcome these prevailing limitations, exploring how the presence of other forms of CEM may affect earnings management and could extend the search to the determining factors of such mechanisms.

Additionally, it would be interesting to analyse the proprietary structures as of a more recent date, in order to verify the extent of the phenomenon of pyramidal groups. The research should be made by replicating the earnings management detection test on the newer financial statements data so as to observe the dynamics of the phenomenon as a result of the adoption of international IAS/IFRS accounting standards.

It would also be interesting to compare the findings of the Italian context with findings from other studies of different socio-economic contexts, e.g. Continental European, Anglo-Saxon, and Asian.

Nevertheless, despite these limitations, the empirical evidence suggests that in the presence of a pyramidal structure there may be a greater tendency to subscribe to the manipulation of accounting data. This result is interesting from an investor viewpoint, where the pyramidal structure may favour the controlling shareholders regarding the extraction of private benefits to the detriment of minority and external investors. On the other hand, accounting regulators and the market could take the possibility of an impact through the behaviour adjustment of pyramidal groups into account.

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