# AN EXPLORATION OF THE EFFECT OF ORGANISATIONAL DEMOGRAPHY ON BOARD SIZE AND LEADERSHIP STRUCTURE: EVIDENCE FROM THE GREEK MANUFACTURING SECTOR

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## Abstract

This study examines how *organisational demography* (organizational age, organisational size and number of years listed in the Athens Stock Exchange, ATHEX), may impact the *board structure* (board size, CEO duality and CEO dependence/ independence). The relationships are proposed, under the light of data collected from the annual reports of all 140 manufacturing organisations quoted in the Athens Stock Exchange. Research findings revealed a significantly positive relationship of organisational size, organisational age and number of years that a firm is listed in the Stock Exchange with board size. However, these organisational characteristics do not influence the leadership structure or dependency/independency of the Chairperson to the CEO. While many studies examining the impact of board characteristics on various organisational outputs, including performance, reputation and effectiveness, there are limited studies investigating variables that affect board characteristics and as such the study opens discussion on potential predictors of board.

**Keywords:** Organisational Demography, Board Size, Board Leadership Structure, Manufacturing Sector, CEO Duality

## 1. INTRODUCTION

The crash of tech stocks in the late 1990s, the big UK's overhaul of Corporate Governance in 2003, the proliferation of corporate scandals in the last couple decades and the global financial crisis in 2008 have made corporate governance an attractive field for professionals, regulators practitioners and academics (Lazarri et al., 2001; The McKinsey Quarterly, 2007; Bartram & Bodnar, 2009). These events do not seem to find an end, as even with the increased publicity and the constant update of the corporate governance codes globally, serious corporate scandals continue to emerge. Some relatively recent – from the many examples – include Turing Pharmaceuticals in the US, VW in Germany, and Toshiba in Japan. In most of these cases, it is the mismanagement and inefficiency in monitoring procedures that has resulted in significant financial losses (Clarke, 2005; Parker, 2005; Petra, 2005).

It has been widely accepted that the board of directors is the most important element in the corporate governance agenda. The main duty of the board is to monitor self-interested behaviours of executives and to fulfil stakeholders' expectations (Daily et al., 2003; Hillman & Dalziel, 2003; Brandes et al., 2015; Boivie et al., 2016). Boards can be described as the "apex of the firm's decision control system" (Fama & Jensen, 1983), which plays a key role in monitoring and controlling managers (Dalton et al., 1998). The board exists primarily in order to hire, fire, monitor, compensate management and vote on important decisions in an effort to maximise the value of shareholder (Becht et al., 2003; Denis & McConnell, 2003; Fistenberg & Malkier, 1994; Salmon, 1993; Westphal & Zajac, 2013). According to

Iskander and Chambrou (2000), the board of directors is the centre of the internal system of corporate governance and, in this scope, it has the responsibility to assure the long-term viability of the firm and to provide oversight of management. Bhojraj and Sengupta (2003) assert that the boards have the fiduciary duty of monitoring management performance and protecting shareholders' interests. Boards have a range of roles and responsibilities such as the institutional role, strategy role, disciplinary role, figurehead role, ethical role, auditing role, class hegemony role (Hung, 1998; Zahra & Pearce, 1989). In this paper, it is being suggested that certain demographic characteristics of the organisation can affect the board configuration, as they may indicate different needs. For example, it is argued that the longer an organisation is listed in a stock exchange the higher the pressure for the independence of the chairman as various corporate governance codes recommend.

In Greece, Corporate Governance is a topic of increasing interest, as a result of dysfunctional boards, executive misconduct, the 1999 Athens Stock Exchange crisis and international pressures for a more market based/ shareholder-oriented model of governance. From 1997 to 2000 Greece strived to fulfil the "Maastricht Criteria", in order to be able to join the Eurozone. In the period from 1997 to 1999, the Athens Stock Exchange (ATHEX) had a high growth. However, during the third quarter of 1999 the market experienced losses, accounting for nearly 70% of "Peak Value" (ATHEX Annual Report, 2001). Consequently, the Hellenic Capital Market Commission (HCMC) and the ATHEX enforced rules & regulations to protect investors, guarantee the operation and liquidity of the market and enhance trading (Mertzanis, 2001). In 1999 the Committee on Corporate Governance published the "Principles of Corporate Governance in Greece" dealing with: "rights" & "obligations" of shareholders, "equitable" treatment of shareholders, shareholders' role in corporate governance, transparency, disclosure and auditing of information, the "make up" of the board of directors, and executive management (Committee on Corporate Governance in Greece, 1999). The main aim was to forsake similar events from occurring in the future. At the same time, similar reforms have taken place worldwide; lawmakers took action in order to exert pressure on companies to reform corporate boards' "structure & processes" which resulted in demonstrating sound corporate governance policies and practices.

This paper is based on a sample of 140 manufacturing firms listed in the ATHEX and explores the relationship between organisational demographics and board characteristics. More specifically the study captures three organisational demographics, which are the organisational age, the organisational size, and the number of years that companies have been listed in the ATHEX. The hypotheses of the paper are based on the assumption that these organisational characteristics can determine the size of the board as well as the leadership structure and independence. Specifically, the findings examine the organisational characteristics influence on board size, board leadership structure (duality), and CEO dependence or independence. Finally, recommendations for future research are made.

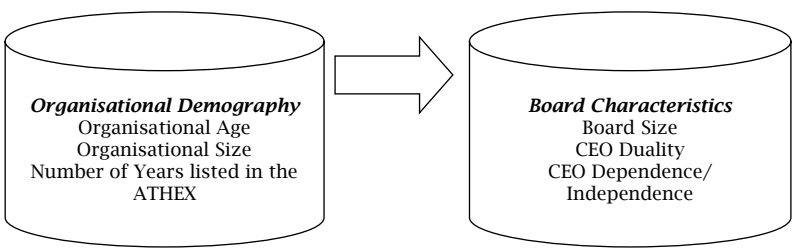
## 2. LITERATURE REVIEW

Corporate Governance refers to the "integrated set of internal and external controls" (Baysinger & Hoskison, 1990) and deals with issues like: board size, leadership structure, and CEO dependence and independence, assuming that boards influence the strategic direction and performance of the corporations they govern (Beekun, Stedham & Young, 1998). Shleifer and Vishny (1997) view corporate governance as "the ways in which suppliers of finance to corporations assure themselves of getting a return of investment" emphasizing economic return, security and control. Donaldson (1990) describes it as a "structure whereby managers at the organisation apex are controlled through the board of directors, its associated structures, executive initiative, and other schemes of monitoring and bonding" thereby narrowing the "scope" and "structure" of the board of directors. In contrast, Kaplan and Norton (2000) focus on "stakeholder participation", defining corporate governance as "the connection between directors, managers, employees, shareholders; customers, creditors and suppliers to the corporation and to one another" involving more "interest groups".

For this study, we propose a model (Figure 1) seeking to examine the impact that *organisational demographic characteristics* (age, size, number of years listed in the Stock Exchange) have on *board characteristics* (size, leadership structure, CEO dependence/independence). The conceptual development and theoretical relationships are discussed in subsequent paragraphs.

A plethora of studies argues that board characteristics can affect board and organisational performance (Koufopoulos et al., 2009; Brown, 2005; Upadhyay & Sriram, 2011). However, a limited number of studies (e.g. Koufopoulos et al., 2013) have investigated the relationship between board characteristics and organisational demographics.

**Figure 1**. Theoretical model



***Board Characteristics*** refer to the formal structure of the board of directors and its major dimensions are board size, board leadership structure and CEO dependence/independence.

*Board Size* is an element of board structure (Daily & Dalton, 1992); it can range from very small (5) to very large (30 plus) (Chaganti, Mahajan & Sharma, 1985). Studies over the past 50 years found the average size is from 12 to 14 members (Conference Board, 1962, 1967; Gordon, 1945). As board size increases, "expertise" and "critical resources" of a firm (Pfeffer, 1973; Larmou & Vafeas, 2010) as well as company performance (Singh, 2017) are enhanced. Larger boards prevent the CEO from taking actions against shareholders' interests (Singh & Harianto, 1989). However, increased board size hinders initiative & strategic actions (Goodstein, Gauten & Boeker, 1994) while unproductive interactions may develop as well (O'Reilly, Caldwell & Barnett, 1989).

On the contrary, a smaller board has the ability to adapt and exercise a controlling role (Chaganti, Mahajan & Sharma, 1985), while a smaller group size allows for increased participation and social cohesion (Muth & Donaldson, 1998) and due to that it increases board's performance (Koufopoulos et al., 2008a; Nguyen et al., 2016).

*Leadership Structure – CEO Duality*: Another important issue is "CEO duality", which occurs when the same individual holds both the CEO and Chairperson's positions in a corporation (Rechner & Dalton, 1991). There are previous studies (Weir & Laing, 2001) that have identified the Chairpersons' capabilities, including time to devote to running the board; knowledge of the industry and willingness to play a behind-the-scenes role. The Chairperson should also ensure that the directors have all the information needed and that there is an effective communication with shareholders. Finally, it arranges a regular evaluation of the board and its members, committees and manages the relations between the executive and non-executive directors.

On the other hand, CEOs are responsible for the "day-to-day" management of the company, including the implementation of board decisions. Serving as a Chairperson may not allow the CEO to perform his/her original role that is being highly demanding, although Krause et al. (2014) suggest that the debate is far more complex than viewing it dichotomously. While an individual is serving as CEO and Chairperson at the same time, he/she has greater stature and influence among board members (Harrison, Torres & Kukalis, 1988) but hampers the board's "monitoring" capacity (Beatty & Zajac, 1994).

Agency theorists support a separation of jobs/roles of CEO and Chairperson. As they claim, performance will be improved when the board can better monitor the CEO (Harris & Helfat, 1998; Krause et al., 2014; Aktas et al., 2018; Broye, 2017). They also state that if a company combines the above roles much power is concentrated to one individual who is able to make decisions that do not maximise stakeholders' wealth (Higgs Review, 2003; Mallete & Fowell, 1992; Bliss, 2011). This separation of CEO and Chairperson's roles is considered a condition for avoiding a "conflict of interest" between "corporate constituencies" and "management", and due to that, it improves the boards' ability to govern (OECD, 2004).

*Chairperson's Dependence/Independence:* While, there is a tendency towards the separation of CEO and Chairperson, based on a need for "independence" between management and board, there is no considerable empirical research that examines the extent to which a separate board structure provides the needed "independence". Even when a separate leadership structure is adopted, the affiliation between the CEO and Chairperson may result in a dysfunctional board. Chairpersons who are influenced by the CEO vis-à-vis personal, professional, and/or economic relationships may be less effective in monitoring management (Bainbridge, 1993; Daily & Dalton, 1994a; Gabrielsson & Huse, M., 2005, Bezemer et al., 2012).

As noted, research has neglected the issue of Chairpersons' and CEOs' dependence/independence. Most research conducted pays attention to the "independence" versus "dependence" of a board to the CEO. Agency theory advocates that affiliated directors protect/enhance their business relationship with the firm; subsequently, are less objective monitors of management than independent directors (Anderson & Reeb, 2004) as "affiliate" directors develop a "conflict of interests" (Dalton et al., 1998). Although, as argued by Krause (2016) and Koskinen (2015) further empirical research is needed to examine the extent to which separating the positions of Chairperson/CEO is more effective than a joint Chairperson/CEO, empirical findings demonstrate that having "outside"/"independent" directors on the board improves firm's performance (Barnhart, Marr & Rosenstein, 1994; Daily & Dalton, 1992; Daily & Dalton, 1997; McNulty et al., 2011).

However, Stewardship theory suggests that a separate but "affiliated" board structure tends to develop trust, empowerment, and provide ease of communication all of which are needed for effective functioning. Therefore, "affiliated" directors or Chairpersons may feel more "aligned" with future performance (Muth & Donaldson, 1998; Liu et al., 2011).

***Determinants of the Board Structure:*** In our study, the organisational characteristics examined are: organisational age, organisational size, and the number of years that each company is listed in the Athens Stock Exchange (ATHEX), which can be some of the board determinants that have been overlooked in studies of corporate governance.

*Organisational Age* is the number of years that an organisation exists (Judge & Zeithaml, 1992). From the "adaptive system" perspective, age is an indicator of accumulated knowledge & experience (Carroll & Harrison, 1998; Glance et al., 1997; Lant & Mezias, 1992; Lin & Hui, 1999). Lin and Li (2004) have classified organisations according to "age" using two categories: *young* and *mature*. Neubaum et al. (2004) and Zahra (1996) classified "*young*" firms those that have been incorporated for eight years or less and as "*mature*" those that exist for nine or more years.

The "Institutional theory of action", states that reliance on rules increases as an organisation ages (Zhou, 1993). This increase results from pressures for "internal consistency" and "homogeneity" amongst members' (Aldrich, 1972). Additionally, an organisation's mission and purpose are linked with its rules and norms (Ocasio, 1999). All the above

arguments support that rules and procedures increase, as an organisation ages.

Some scholars (Baum, 1996; Boeker, 1989; Zajac & Kraatz, 1993) argue that organisational age can affect the ability to implement "strategic change" either positively or negatively. For, "mature organisations" are likely to resist change because their history creates a "barrier" (Nelson & Winter, 1982; Hannan & Freeman, 1984). Older organisations are more committed to their "routines" (Levitt & March, 1988) and have "formalised internal relationships" (Stinchcombe, 1965). Additionally, organisational age and a subsequent "resistance to change" may cause "strategic inertia" (Ginsberg & Buchholtz, 1990).

Furthermore, organisational age is associated with a firm's ability to innovate. Innovation is governed by organisational routines and search strategies (Nelson & Winter, 1982). The firm's ability to innovate depends greatly on the ways knowledge is communicated and distributed within it (Cohen & Levinthal, 1989; 1990). Therefore, if age creates increased firmness in communication, older organisations may be less innovative. Furthermore, other scholars argue that organisational competencies are improved with time and that older firms are more efficient than younger ones, because of greater production experience, better relationships with vendors and customers (Ang et al., 1999) and therefore, have enhanced performance.

Moreover, Stinchcombe (1965) argues that newly established firms have higher propensity to die because they suffer in several structural fronts, as a result of a lack of know-how and understanding of "processes" and "structures", leading to higher failure rates among young firm (Bruderl & Schussler, 1990; Henderson, 1999).

Since, organisational age is associated with established procedures and structures; we assume that it will be related to *board's size* and *leadership structure*. Thus, the following propositions were formulated:

*Proposition 1a: Organisational age is positively associated with a board's size.*

*Proposition 1b: Older organisations tend to have separate leadership positions.*

*Proposition 1c: Older organisations tend to have independent CEOs and Chairpersons.*

*Organisational Size:* indicates the number of organisational members, usually employees (Glisson & Martin, 1980), and reflects "resources" available (Weiner & Mahoney, 1981); which influences the amount of economic activity the firm can engage in. It is expected that larger firms are engaged in higher volume of activities and activities that are more diverse; such as operating in different product and geographical markets, engaging in more M&A activity, using more sophisticated financial and marketing techniques etc. "Agency" perspective supports that, larger firms require a greater number of directors to monitor and control a firm's activities (Kiel & Nicholson, 2005). Similarly, "Resource dependency" theory suggests that while there is a need for "environmental linkage", the firm's size increases (Allen, 1974; Dooley, 1969). Larger organisations require access to more resources; in order to attain them, they appoint more directors, who provide access to necessary resources (Kiel & Nicholson, 2005). Empirical findings concerning small to medium firms have shown that small firms (approximately 30 employees) have boards composed of "single-owner" managers or small teams, compared to large firms (approximately 100 employees) who employ larger boards (Bennett & Robson, 2004). This positive relationship of organizational size with board size is also supported by the results of Denis and Sarin (1999) and Yermack (1996).

Moreover, based on resource dependence perspective (Hillman & Dalziel, 2003) it is expected that as board size increases, the ability of the board to provide resources would increase too, by adding up each member's human and social capital. Pfeffer and Salancik (1978) suggest that board size would depend on the needs of the organisation for access to resources and that the greater the needs, the larger the size. Therefore, it is expected that a greater number of directors will lead to increased supply of resources, which may be the need in larger organisations.

In addition, Boone et al. (2007) argue that boards of larger firms usually have a greater need to increase their board size, as such tasks as succession planning, compensation and auditing are assigned to board committees rather than handled by the board as a whole. These committees are usually run by a significant number of outside directors, which also indicates the need for greater independence of the board in order to provide effective monitoring to the management.

Organisational size is also expected to impact board structure. Firstly, it is suggested that as the size of the organisation increases, there is a need for additional board members, supported in the findings of Ali (2018) who found that this relationship is stronger in manufacturing firms. Moreover, it is argued (Lehn et al., 2009) that larger firms require more outside directors because their large size increases the potential agency problems. Thus, as this risk of agency problems increases, apart from the need for more outside directors, separation and independence of the Chairperson to the CEO is strongly suggested (Krause et al., 2014; Lublin, 2012) even though there is also opposite evidence found by Linck et al. (2008).

Consequently, the followings propositions are formed:

*Proposition 2a: Organisational size is positively related to board size.*

*Proposition 2b: Larger organisations tend to have separate CEOs and Chairpersons.*

*Proposition 2c: Larger organisations tend to have independent CEOs and Chairpersons.*

*Number of Years listed in the Stock Exchange:* Quoted companies are required to disclose their annual reports, which include the capital structure, turnover, profit or loss, total assets, net assets, liabilities (long-term and current), their financial statements and any other important information (Chen, 2001).

To ensure shareholders interests', listed companies appoint non-executive directors (Westhead, 1999). For instance, companies in the London Stock Exchange have at least three "non-executive" directors in the board (Kesner & Dalton, 1994), while Greek Law No. 3016/2002 implies that non-executive directors should account for at least

one-third of the board, with minimum two independent members. However, according to the law representatives of the minority shareholders can replace the independent members. Additionally, the law establishes rules and regulations regarding: obligations of the board, internal control mechanisms, transparency, and disclosure.

Moreover, empirical research suggests that the length of the period a corporation is listed in a Stock Exchange can affect its internal governance mechanisms and performance (Ritter, 1984; Aggarwal, Leal & Hernandez, 1993; Levis, 1993; Loughran & Ritter, 1995). Listed companies have more structured boards, more frequent meetings, and provide financial information to the public so as to carry out board functions and fulfil legal responsibilities (Demb & Neubauer, 1992). In listed companies, boards have more formal channels of communication, which increases the external attention on corporate governance and more proper and transparent processes for selecting and dismissing CEOs (Long, Dulewicz & Gay, 2005). Firms attempting to ferment their place in a stock exchange are establishing larger and more diverse boards, in order to fulfil the needs of stakeholders. At the same time, these larger and more diverse boards can provide access to more resources and increase their networking ability as the resource dependence perspective suggests. Hence, it can be argued that as an organisation stays in a stock exchange for a longer period, it is more exposed to the highly regulated external environment and as such it attracts more board directors.

Moreover, the more the years an organisation has been "listed", the more it complies with policies and legal requirements. For instance, regulatory reforms (Cadbury report, 1992) encourage quoted firms to separate the CEO and Chairpersons' Positions and to employ a minimum number of non-executive directors.

Boone et al. (2007) and Mikkelson et al. (1997), who named the years since the IPO as firm age, found that the number of directors steadily increases after the IPO for at least 10 years, while studies from authors (Denis & Sarin, 1999; Gkliatis et al., 2009) that also included older listed firms in their samples, strengthen the view that the board size continues to increase after those 10 years. Increase in board size is positively associated with the independence of the board, as usually companies that tend to employ more directors, they seek for outside directors, which will improve the monitoring function of the board and also bring the needed resources to the increased requirements of the firm. So, based on these arguments it is assumed that bigger boards, will also give more emphasis to the separation in the board leadership roles and to the appointment of an independent Chairperson.

Therefore, the following propositions are developed:

*Proposition 3a: the numbers of years that a firm is listed are positively related with the size of the board.*

*Proposition 3b: the more the years the company is listed, the more likely is to employ separate CEO and Chairperson Positions.*

*Proposition 3c: the more the years the company is listed, the more likely is to have independent CEOs and Chairperson.*

## 3. METHODOLOGY

### 3.1. Sampling

It was decided to use publicly listed firms for the study since they are required to disclose information of the board of directors and to publish annual reports and financial statements (Phan, Lee & Lau, 2003). All the 140 publicly listed manufacturing firms were drawn from the ATHEX – the official shares trading market in Greece[1] – operating in the following sectors: food products-beverages; textiles, wearing apparel, footwear; rubber-plastic products, non-metallic mineral products; basic metals and metal; machinery and equipment; and motor vehicles and other transport equipment. The ATHEX is the official shares trading market in Greece; it provides information on firms that are traded (ATHEX, 2001).

### 3.2. Measurements

The independent variables that were analysed are: organisational age, organisational size, and the number of years that a firm has been listed in the Athens Stock Exchange. The dependent variables are: board size, CEO duality and CEO dependence/independence.

*Organisational Age* was available from the Athens Stock Exchange and was defined as the number of years elapsed since an organisation was incorporated, while *the size of the organisation* was operationalised by the total number of employees employed by the organisation. T*he number of the years that the company is listed* was gauged by calculating the number of years elapsed since the company listed in the ASE.

*Board size* was measured by counting the absolute number of directors that are listed in the company's annual report. For the purpose of analysing *CEO duality* a binary variable was used coded "1" for those employing the joint structure and "2" for those firms employing the separate board structure. However, *CEO-Chairperson dependence/independence* was measured by using three values: "1" for CEO duality, "2" for CEO /Chairperson separate but affiliated (CEO-Chairman dependence) and "3" for CEO/Chairman separate and independent (CEO unrelated to Chairperson).

## 4. RESEARCH FINDINGS

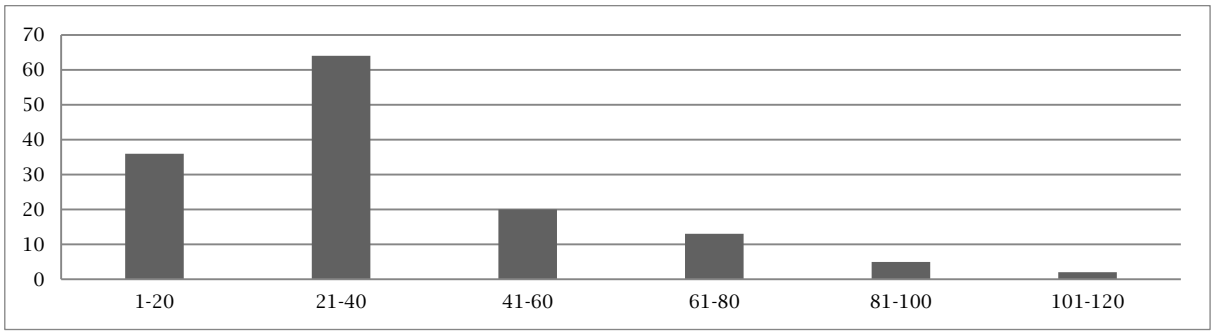
Descriptive statistics were used to portray the data and correlation analysis to explore the interrelationships between organisational and board characteristics. The study aimed at providing both an account of the corporate governance practices in Greece and testing a number of propositions. Thus, the first descriptive results will be presented followed by proposition testing through correlation analysis.

*Organisational Age:* The empirical findings of our study demonstrate that on average the 140 Greek manufacturing organisations were approximately 34 years old; while, most of the organisations (46%) were 21-40 years old and 26% were between 1-20 years old (Figure 2). In a similar

[1] www.ase.gr/content/en/companies/ListedCo/profiles

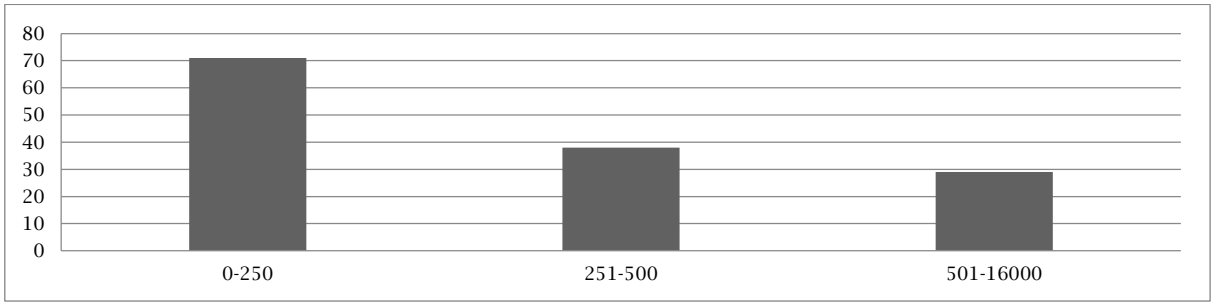
study of family and professionally managed firms, Daily and Dollinger (1992) found that the average organisational age was 42 years in a total of 67 firms which consisted of 43 publicly traded and 24 privately traded. For the privately traded companies, the average was 10.4 years (Boeker & Goodstein, 1993). In addition, the average firm age of 104 manufacturing Australian firms was 43.4 and of 169 Japanese manufacturing firms was 63.7 (Bonn, Yoshikawa & Phan, 2004). According to the surveys of the Hellenic Observatory of Corporate Governance (HOCG, 2008; 2009), 45.4% of the listed companies were established from 1971 to 1989, while 29% were established before 1971 and 26% from 1990 to 2007.

**Figure 2**. Organisational age (N=140, $\bar{x}$=33.7, median=28.0, SD=21.5)



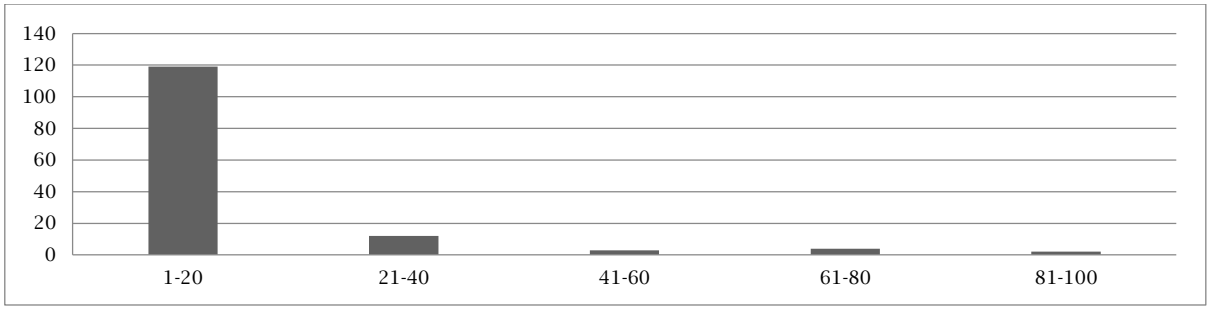

*Organisational Size:* As it can be seen from Figure 3 the minimum number of staff employed by Greek manufacturing firms is 15, the maximum is 3350 and the average is approximately 400. According to the studies of the HOCG (2007; 2008; 2009), Greek listed companies had on average 730 employees during the years 2006 and 2007. In similar studies, it was found that the average firm size of 486 small manufacturing firms was 78.8 (Daily & Dollinger, 1992) and of 446 listed Danish firms was 3273 employees (Rose, 2005). The organisational size of the majority (25.6%) of 242 manufacturing firms was ranging between 200-499 employees (Michie & Sheehan-Quinn, 2001).

**Figure 3**. Organisational size (N=138, $\bar{x}$=399.25, median=250.00, SD=467.42)




*Listed in the ASE:* Figure 4 indicates that the average number of years listed in the ASE was 12; however, the majority (85%) of Greek firms were listed the last twenty years on Athens Stock Exchange and while 9% of them have been listed for 21 to 40 years. Notably, 2 companies have been listed approximately 90 years ago. HOCG (2007; 2008; 2009) clarified Greek listed companies into 3 categories regarding the years that they were listed in the ATHEX; the first category was "veterans" (companies that went public before 1979), the second was "mature" (companies that went public between 1980 and 1999) while the third was "neophytes" (companies that went public from 2000 up to 2006). According to that survey, 49% of the companies were mature (1980-1999) while 37% were neophytes (2000-2007) and 15% were veterans (before 1970).

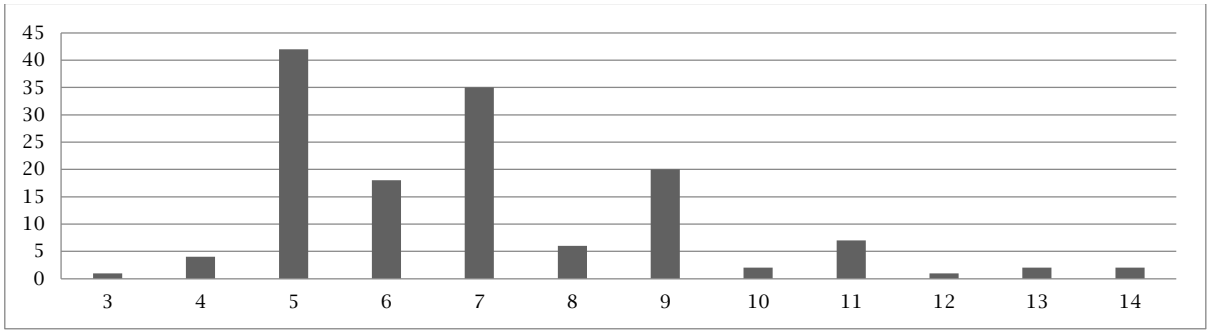
**Figure 4**. Number of years listed in the ATHEX (N=140, $\bar{x}$=12.14 SD=5.90)



*Board Size:* As it can be seen in Figure 5, the average board size consisted of 7 directors; the majority of Greek companies have boards consisting of either 5 (30%) or 7 (25%) directors respectively. These findings agree with studies that found that the average board size in Greece is seven directors (Florou & Galarniotis, 2007; Koufopoulos et al., 2008a; Koufopoulos et al., 2008b; HOCG, 2007; 2008; 2009; Grant Thornton, 2006; 2007; 2008).

However, studies from other countries reveal quite diverse results. The average board size of 69 US manufacturing companies was 13.2 (Pearce & Zahra, 1991), while the average board size of 104 Australian manufacturing listed companies was 7.3 and of 169 Japanese manufacturing listed firms was 27.6 (Bonn et al., 2004). It is interesting to notice that the average board size of Greek manufacturing firms is much less than in the US and Japan manufacturing firms.

**Figure 5**. Board size (N= 140, $\bar{x}$ = 6.95, median=7.00, SD=2.16)




*CEO Duality:* Upon examining the data, there is a balance between firms that have chosen the separation of the CEOs and Chairperson positions and those that have not. Particularly, 72 firms (51.4%) have adopted the "duality" approach, while 68 firms (48.6%) have adopted the "separate" approach; two individuals fulfil the positions of CEO and Chairperson respectively. This finding is similar to Grant Thornton's (2005; 2006; 2007) surveys, that found that in less than 50% of companies the Chairperson and CEO are different individuals without family ties.

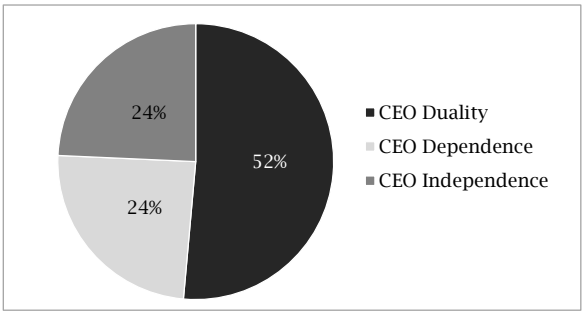
On the other hand, other studies investigated that the majority of Greek listed companies split the roles of Chairperson and CEO. Florou and Galarniotis (2007) collected data from 274 listed companies in 2003 and argue that the majority of companies (53%) separate these roles. Similarly, Tsipouri and Xanthakis (2004) claim that 53% of companies have separate individuals on these roles.

Empirical studies conducted in the United States (Baliga & Moyer, 1996), in Europe (O'Sullivan & Wong, 1998; Dedman, 2000) and in Singapore (Wan & Ong, 2005) have shown that manufacturing firms tend to rely on a "separate" leadership structure model.

*CEO Dependence/Independence:* Figure 6 indicates that of the manufacturing companies that employ a "separate leadership" structure (48%) – half are somewhat affiliated; being either family members or former business associates. The rest are independent from the CEO. In other studies (HOCG, 2007; 2008; 2009) it was found that a high proportion of Chairpersons and CEOs (15%) have the same surname, and due to that, it was argued that only 42% of boards have a separated and independent (without CEO-Chairperson family ties) board structure.

Other studies revealed that only 24 % of quoted UK firms have independent boards (Weir & Laing, 2001) and in 20% of U.S quoted corporations chairpersons were somehow related with the CEO and only 12% of these firms, had a joint CEO/Chairperson structure (Daily & Dalton, 1997).

**Figure 6**. CEO dependence/independence (N=140)




*Proposition Testing:* Table 1 presents the correlation matrix showing the relationships between organisational demographic characteristics and board structure characteristics.

*The first proposition* aimed at investigating examining the relationship between organisational age and board size and structure. The results showed that the older the organisation is, the bigger the size of the board becomes, which is translated as a positive relation of the two variables. Nevertheless, there wasn't found a relationship between the organisational age and the leadership structure or the dependency/independence of the chairperson to the CEO. *The second proposition* suggests a significant positive relationship between organisational size and board size. The results indicate that as the size of the firm increases the board size increases as well. However, no significant association between organisational size and leadership structure was found. Furthermore, no statistically significant relation was detected between organisational size and chairperson independence. Finally, the *third proposition* implies that the number of years that a firm is listed in the Stock Exchange can be positively correlated with board size, while there was no significant effect of the years that a firm is listed in the Stock Exchange on the leadership structure and the independence of the Chairperson.

Moreover, ANOVA test was employed to examine the difference in means of groups of

organisational characteristics in terms of board size (Table 2). From the findings, it is evident that there is a significant difference in the means of board size for companies that differ in age, size and the number of years that have been listed in the stock exchange. The test further supports the proposition that board size is affected by these organisational characteristics.

**Table 1**. Correlation matrix for organisation characteristics and board characteristics

| | *Board Size* | *CEO Duality* | *Chairperson Independence* |
|---|---|---|---|
| Organisational Age | ,215(**) | -,034 | -,055 |
| Organisational Size | ,434(**) | -,094 | -,062 |
| Year of entering the ATHEX | ,255(**) | -,028 | -,020 |

*Note: ** Correlation is significant at the 0.01 level (2-tailed).*
*CEO Duality:* "1" for joint leadership structure, "2" for separate leadership structure.
*CEO/Chairman dependence/independence:* "1" for CEO duality, "2" for CEO/Chairman separate but affiliated, "3" for CEO/Chairman separate and independent.
*Number of Years listed in the Athens Stock Exchange: "1" for 1-20, "2" for 21-40, "3" for 41-60, "4" for 61-80, "5" for 81-100, "6" for 101-120, "7" for 121-140, "8" for 141 or more.*

**Table 2.** ANOVA results

| *Independent* | *Dependent: Board Size* | |
|---|---|---|
| | *Mean* | *F* |
| ***Organisational Size*** | | |
| A. up to 50 | 6.25(n=71) | 10.648*** |
| B. 51 to 250 | 7.32(n=38) | |
| C. 251 to 500 | 8.24(n=29) | |
| ***Organisational Age (years)*** | | |
| A. 1-20 | 6.39(n=36) | 2.050* |
| B. 21-40 | 6.84(n=64) | |
| C. 41-60 | 7.08(n=13) | |
| D. 61-80 | 7.55(n=20) | |
| E. 81-100 | 8.60(n=5) | |
| F. 101-120 | 9.50(n=2) | |
| ***Year listed in the ATHEX*** | | |
| A. up to 20 | 7.56(n=119) | 3.056** |
| B. 21-40 | 7.41(n=12) | |
| C. 41-60 | 7.26(n=3) | |
| D. 61-80 | 7.26(n=4) | |
| E. 81-100 | 7.26(n=2) | |

*Note: *p<0.10, **p<0.05, ***p<0.001*

## 5. CONCLUSIONS AND DISCUSSION

Numerous corporate collapses and scandals have spurred recent changes, and boards are required to take a more active role in monitoring, evaluating and improving their own performance, the CEO's performance and subsequently the firm's performance. This study aimed to examine the effects of organisational characteristics on board attributes based on a sample of Greek manufacturing firms.

In particular, this study found that the majority of Greek manufacturing firms have on average 400 employees. A great portion of Greek manufacturing firms has been incorporated in the last forty years, specifically 92% (129), whereas a great proportion of those, which is 85% (119), have been listed in the ASE since the 1980. In addition, it was found that a big segment of Greek companies (30%), have an average board size of seven members. It also appears to be a balance between firms that have chosen the separation of the CEOs and Chairperson Positions and those that have not. More specifically, 51.4% of Greek firms have adopted CEO duality, while 48.6% tend to choose separate Chairperson and CEO. A closer look at the above reveals that on those instances that a separate structure exists, an affiliation between the two key organisational decision makers appears. Organisational characteristics, such as organisational age, organisational size, and the number of years listed in the Athens Stock Exchange, were examined with respect to board structure components (board size, CEO duality, CEO dependence/independence). The results have revealed positive and significant associations between all three organisational characteristics (size, age and years that a company is listed in the ATHEX) and board size, but not with the CEO Duality or the CEO dependence/independence.

The findings and the implications of this research should be considered in light of its limitations. First, data from one year only was used. Generalisability of the findings would have enhanced if we had used data in time series of three or five or more consecutive years. During the period of data collection, the activities of the Greek listed companies might have been influenced by external factors (e.g., economic recession). Second, the sample composed of a cross-section of firms of different sizes, ages, and operating in one sector (manufacturing), which couldn't provide a holistic insight regarding the corporate governance practices and for all Greek listed and non-listed firms.

Future research can examine the relationship between board characteristics with financial performance measures. Furthermore, a more detailed examination of organisational characteristics could give us more useful insights into the relationships with board characteristics. One example would be to explore how the board size depends on the number of sectors in which a company operates. In addition, an interesting avenue of research could be the differences that well-performing versus poor performing firms may exhibit in relation to board elements. Moreover, there is a need to continue the cross-country comparative approach examining the effectiveness of the governance role played by the boards in different national contexts: Balkan and Southeast European, Mediterranean and Middle East countries.

Further research in the area of corporate governance will provide researchers with additional elements and factors that may influence this increasingly interesting and important scientific domain in the years to come.

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