Analysing why Organizations Differ in Board Composition: Evidence from a Large Panel of Greek Manufacturing Firms

Abstract

In this paper building upon several theories (agency theory, stakeholder theory and resource dependence theory) and by utilising data from 161 Greek manufacturing companies that were listed in the Athens Stock Exchange on the 31st December 2008, we explore the relationships between the organisational characteristics of the firms (organisational age, organisational size and years listed in the stock market) and the board configuration (board size, board leadership structure and directors' dependence/independence). The motivation of the study was based on both the peculiarity of the Greek context in the front of a strong economic crisis, but also in trying to establish relationship of board characteristics with factors that are understudied. Both descriptive and inferential statistics (ANOVA tests) were utilised to answer the research questions. Interestingly and in alignment with the literature, the findings showed that larger organizations tend to have larger boards and greater proportions of external and independent directors. However, no more strong relationships have been identified between the organisational characteristics and the board configuration. The paper contributes by suggesting that while board configuration is being determined by factors like the legal context of the country and the broader external environment suggested by the literature, various company characteristics can explain some of the board characteristics. Finally, it is worth mentioning that this study examines the listed Greek manufacturing companies during very turbulent times, the start of the financial crisis in Greece, which may have an impact on the configuration of the boards at that time.

Keywords: board configuration, organisational characteristics, independent directors, board leadership structure, organisational age, organisational size.

1. Introduction

Numerous studies in the last couple of decades attempt to establish the links between the board characteristics and financial performance of businesses. While discussion of hot topics in the corporate governance agenda increases geometrically—with examples of limited board diversity, inflated executive compensation and lack of transparency in board operations—there is still limited research on what may determine the different needs businesses may have in terms of their board composition (Koufopoulos and Gkliatis 2018; Koufopoulos et al., 2013). Corporate governance (CG) has emerged in the last 20 years mainly due to a number of corporate failures and scandals that have drawn the global attention. Furthermore, the financial crisis in 2008 has highlighted issues of CG in a widest sense and the corporate governance codes and recommendations are being revisited in order to facilitate transparency and accountability of the management processes within organisations. Most of the discussion on CG has been driven by concerns with the effectiveness of board of directors that is expected to represent the interests of the shareholders; a board that that is supposed to control the opportunistic behaviour of managers and to provide resources to the firm. This paper aims to understand whether internal company characteristics can determine or impact the way boards are formulated. It is suggested that companies of different size, age and years being listed in the stock exchange may lead to different needs in the board configuration.

Previous research has supported the view that national regulatory institutions dictate the intra-company corporate governance systems and mechanisms (Yoshikawa, Zhu, Wang, 2014; Filatochev, Jackson, Nakajima, 2013; Aguilera and Jackson, 2003; La Porta, Lopez-de-Silanes, Sheifer and Vishny, 2000;). Nevertheless, more recent research has highlighted firms do not always comply with the regulatory mandate (Bednar, Love and Kraatz, 2015; Chizema, Liu, Lu and Gao, 2015). This is in line with the difficulty of estimating the consequences of changes in governance provisions on shareholder returns. The selection of the governance structure and the type of governance provisions of the firm, have an endogenous origin and they are correlated with other firm's characteristics, which means that if we compare the returns of firms with distinct governance structures it would be extremely difficult to isolate the effect that governance has over the returns. In addition, investors do understand that a better governed firm might have a superior performance, which is depicted in higher share prices (Cunat, Gine, Guadalupe, 2012).

In Greece, CG is a topic of increasing interest, as a result of dysfunctional boards, executive misconduct and international pressures for a more shareholder-oriented model of governance. However, due to the fact that Greece is a small economy with the majority of companies being small to medium, the interest of corporate governance is highly concentrated on the listed companies of the Athens Stock Exchange (ATHEX). In this study, the focus is on the manufacturing companies of the ATHEX, with about half of the total listed companies being characterized as such.

The negative international environment during 2008 has affected the performance of the Greek economy. The major financial indices of the Greek economy have remained at the same levels with the previous years or became negative (Bank of Greece, 2008). It is worth mentioning that during the period 2000-2010 the manufacturing sector increased with a lower rate than the national economic activity (+0.1% from +2.2%). Especially, the manufacturing sector shrunk by 1.7% in 2008, due to the global financial crisis (Foundation for Economic and Industrial Research, 2012). During this period, the production rose only in 9 branches of the sector, while in the majority—14 branches—the production declined. More specifically, whenever a branch registered an increase, the decline from the rest of the branches was significantly stronger (Foundation for Economic and Industrial Research, 2008).

2. *Literature Review and Theoretical Underpinnings.*

2.1 Agency Theory

Agency theory has been recognised as one of the most influential theoretical models in management and in corporate governance research field (Phillips, 2016; Dalton et al., 2007). The division between the interests of the owners (shareholders) and the managers in the value creation process, where the first interested party employs the second, lays in the core of agency theory. Although, principals expect a pre-determined level of output, exogenous factors and deficiency of information prevent the determination of this output. Assuming that both parties are utility maximisers, the concept of “managerial mischief” is introduced describing the diversion of interests between the agents or the information deficiency for the principal (Dalton et al., 2007). Managers, in order to maximize their utility either they reduce their efforts deliberately or they provide themselves with ‘enhanced’ compensation (Hendry and Kiel, 2004). On the other hand, due to non-efficient information channels, the self-indulgent actions of the manager are not becoming known to the principal. In both cases, the manager acts at his own benefit, and disregards the best interests of the principal. In order for the information asymmetry to be reduced principals deploy monitoring systems and processes (Bose and Phillips, 2016).

Board of directors are considered an indispensable control mechanism for firms (Allam, 2018). In addition, they are the only elected mechanism which is designed to mitigate the agency problem and protect shareholders interests (Bebchuk & Weisbach, 2010). In line with the above the agency perspective calls for larger boards, which are more capable of performing the control process and smaller boards (Allam, 2018). The board independence is another topic where the agency theory and board composition are met. The introduction of more independent directors enhances the monitoring capability of the board over the management of the company and ameliorates its capacity to determine their compensation based on their performance (Krause et al., 2014; Coles et al., 2008; Dalton et al., 1999; Fama and Jensen, 1983a; Jensen and Meckling, 1976;). Furthermore, the separation between the position of the chairman and the CEO, increases the independence of the board, moderating the CEO authority and reducing the control over the board (Van Essen et al., 2013).

2.2 The Stakeholder approach

The term “stakeholder” was introduced by an internal memorandum at the Stanford Research Institute in 1963, according to Parmar et al. (2010), concealing the idea that management should be responsive not only to shareholders but to a larger group of people that interact with the company. Businesses are perceived as networks of relationships between people that affect or get affected by the company. All these groups interact with each other to create value and it is executive’s obligation to manage these relations in order to maximize output (Strand, 2015; Freeman,2010). Freeman (1984) discussed the interrelation between the company and the stakeholder groups. The behaviour towards powerful and important stakeholders is important, because in case of a non-acceptable behaviour they may retreat their support (Harisson et al, 2010; Mitchell, Agle and Wood, 1997). Furthermore, the stakeholder groups could be organizational, societal or economic (Wether and Chandler, 2011). Managers should create and execute the framework and the procedures needed in order for them to keep all the related parties content. By achieving such a task, the long-term viability and success of the firm are assured. The above reasoning is not designed to work only in stable environments, which are quite rare in our days, it is designed to work in turbulent and rapid in change environments. When conflicts of interests and disagreements between the stakeholders arise, managers should address the issue in order to assure the interests of a broad group of stakeholders (Harrison, Bosse and Phillips, 2010).

Laplume et al. (2008) commenting on the seminal work of Freeman (1984) consider the stakeholder approach as a strategic management process with strong moral foundations. Moreover, Freeman et al. (2010, p.196) states, "values, a sense of purposes that goes beyond profitability, and concern for the well-being of stakeholders were critical to the origins of stakeholder theory". Strand (2015), from the same point of view, presents a variety of rewards for stakeholders, which merely are focused to monetary rewards varying from information and status rewards to increase in stakeholder's power.

2.3 Resource Dependence Theory (RDT)

"One of the most influential theories in the management field of study", was introduced by Pfeffer and Salancik in 1978 with their seminal work "The External Control of Organisations" (Hillman, Withers & Collins, 2009 p. 1404). The Resource Dependence Theory illustrates the interorganizational factors/links that drive an independent organisation to develop relationships with other organisations such as board interlocks, alliances, joint ventures, in-sourcing, and mergers and acquisitions (Pfeffer & Salancik, 1978). In the core of RDT resides the fact that no organisation is totally independent from its environment. The firms are open systems that interact with and are affected by the same environment that they operate in. Therefore, the purpose of the aforementioned relationships is to forge organisation's autonomy (uninfluenced decision-making process, Oliver 1991a) and legitimacy (Suchman, 1995). In a more recent study, Drees and Heugens (2013) using a meta-analysis technique have confirmed the importance of interorganizational interdependences in enhancing organisational autonomy and legitimacy.

RDT examines as boards' primary role its capability to provide provision of resources. This comes to oppose agency theory's point of view of monitoring as the primary function of a board. The appointment of external director in RDT serves two additional roles apart from their monitoring responsibilities. They provide managerial expertise and offer support to the firm. Therefore, individual's capabilities and skills might mitigate the external dependencies of the company (Durand & Jourdan, 2012; Pfeffer & Salancik, 1978). In addition, Dowell et al. (2011) argue that board configuration should reflect the contingencies of the external environment. Finally, several studies have illustrated that the board configuration that responds to external environment's demands, leads to improved organisational performance (Walls and Hoffman, 2013; Hillman et al., 2000; Boyd, 1990).

2.4 Board Characteristics

Board Characteristics refer to the formal structure of the board of directors and its major dimensions that are examined in the current study are: board size, board leadership structure and directors' dependence/independence.

Board Size is an element of board structure (Daily and 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 being from 12 to 14 members (Conference Board, 1967, 1962; Gordon, 1945).

As board size increases, "expertise" and "critical resources" of a firm (Pfeffer, 1973) as well as company performance (Singh, 2018) are enhanced. Larger boards prevent the CEO from taking actions against shareholders' interests (Singh and Harianto, 1989); however, increased board size hinders initiative and strategic actions (Goodstein, Gauten and Boeker, 1994) while unproductive interactions may develop as well (O'Reilly, Caldwell and Barnett, 1989). Yildirim-Öktem and Üsdiken (2010) and Gabrielsson (2007), analysing the boards in family firms, identified that the board size is a manifestation of a more active and influential board. Moreover, larger boards provide a larger number of interlocks, which are linked with increased effectiveness in the mitigation of organisational problems (Filatochev et al., 2016). It is worth mentioning, that larger boards provide better access to critical for the firm resources (Musteen et al, 2010). Furthermore, larger boards utilising their capability to delegate duties, are able to remove directors easier than smaller boards (Marcel et al, 2013).

On the contrary, a smaller board has the ability to adopt and exercise a controlling role more efficiently due to its more flexible and less bureaucratic processes—in relation to larger boards (Chaganti, Mahajan and Sharma, 1985). In addition, a smaller group size allows for increased participation and social cohesion (Muth and Donaldson, 1998) and due to that it may increase board's performance (Nguyen et al., 2016; Koufopoulos et al., 2008).

Non-executive Independent Directors: The issue of board independence has largely been discussed and has attracted the interest of scholars, professionals and regulatory bodies, since it is strongly argued that high participation of independent directors is needed in the board as they can bring different attributes to the boardroom that executives fundamentally can't provide sufficiently. That is one of the reasons for specific quotas demanded from capital market regulators (Zhu et al., 2016). The main purpose of the board is to protect shareholders' interests and according to agency theory, the major role of the board members is to monitor the management and the decision process of the organization. Dalton et al. (1998: 275) argue that "outside directors may be best able to fulfil the control role when they are not encumbered by personal and/or professional relationships with the firm or firm management". Based on the level of association between the non-executive independent directors and the proximity of their relationship (business or familial) with the management of the company, we could identify a 'narrow' and a 'wide' definition of the term. However, it must be highlighted that the notion of non-executive independent directors is defined differently in various countries (e.g. Zattoni and Cuomo, 2010).

Agency theorists and corporate governance codes (i.e. The UK Corporate Governance Code, 2016; OECD, 2004; Vienot Report, 1999) support an inclusion of a number of non-executive independent directors in the board. As they claim, performance will be improved when the board can better monitor the CEO (Harris and Helfat, 1998). They also state that if a company mainly consists of executive directors that may have close relationship with the CEO, much power is concentrated to one individual who is able to make decisions that do not maximise stakeholders' wealth (Higgs Review, 2003; Mallete and Fowler, 1992). This inclusion of the right mix of executives and non-executives 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).

Apart from the view of the agency theory that focuses on the contribution of non-executive directors to the monitoring function, the appointment of outside directors in a board can also be useful in terms of provision of resources (Hillman et al., 2009). These resources may be translated as the directors' human capital that is their knowledge, expertise and past experience, but also their so-called social capital that is mainly related to their networking skills. Zahra and Pearce (1989: 308) support that "boards with a majority of outside directors are in a position to establish viable links with different sectors of the external environment". In similar lines, Dalton et al. (1998) argue that non-executive directors may have more access to external information and resources than executive directors, who are largely busy with their organisation's operational responsibilities. The authors make a further comment by distinguishing affiliated from independent non-executive directors; non-executive directors "with personal relationships (e.g. family relations) with firm management may be less effective at the resource dependence and counselling/expertise roles than outside directors without such relationships" (p. 275).

Finally, Adams et al. (2010) supports that there is ambiguity regarding the contribution of non-executive independent directors to the value adding process for the shareholders. Strengthening the aforementioned argument, Ma and Khanna (2016) suggested that social independence restrictions and personal bias shape their corporate behaviour.

2.5 Organizational Characteristics

Three organisational characteristics are regarded as some of the board determinants that have been overlooked in studies of corporate governance.

Organisational Size: Agency perspective supports that, larger firms require a greater number of directors to monitor and control a firm's activities (Kiel and Nicholson, 2005). Similarly, resource dependency theory suggests that while there is a need for "environmental linkage", that is establishing connections and relationships with external stakeholders, the firm's board size increases (Allen, 1974; Dooley, 1969). In other words, larger organisations require access to more resources; in order to attain them, they appoint more directors, who provide access to necessary resources (Kiel and Nicholson, 2005). Shevchenko et al. (2016) has found that larger firms driven from their capability to control and moderate their relationships with the external stakeholders, are restrained to a prolonged period of uncertainty. 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 and 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).

Additionally, according to resource dependence perspective (Hillman and Dalziel, 2003) as board size increases, it is expected that the increased capacity results in providing more resources, by summing up each member's expertise and networking skills. Pfeffer and Salancik (1978: 168) support this idea by suggesting that the board size would adjust 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.

Organisational size also impacts "board structure". Ali (2018) found that—especially in manufacturing firms—as the size of the company increases, there is tendency to have larger boards. Moreover, it is argued (Lehn et al., 2009) that larger firms require more non-executive directors because their large size increases the potential for agency problems. Hence, 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 the literature also offers opposite results (Linck et al., 2008).

Larger companies are considered able to perform sophisticated analysis, to have a wide array of choices and to be able to prevent or mitigate the negative consequences of their decisions (Lange and Washburn, 2012). Firm size is a determining factor for the success of CSR strategies, as larger firms are able to communicate symbolically their policies instead of focusing on their implementation (Wickert et al, 2016).

<u>Organisational Age:</u> Adaptive System perspective implies that organizational age is an indicator of accumulated knowledge and experience (Lin and Hui, 1999; Carroll and Harrison, 1998; Glance et al., 1997; Lant and Mezias, 1992). Similarly, "institutional theory of action" implies that as an organisation ages, reliance on rules increases (Zhou, 1993). Organisational age is associated with aspects of organisational structure (Pugh et al., 1963) and organisational policies (Kimberly and Miles, 1980). Thus it may be suggested that age can be a predictor of various board characteristics. For instance, OECD (1999; 2004) recommends that at least one third of the total number of directors serving a board should consist of non-executive members. The aim of this recommendation is to avoid the concentration of much power to executive directors in order to protect shareholders' interests. Therefore, starting with the assumption that organisational age is associated with more established procedures and structures, it may be expected that board size and number of independent directors increase as the organisation ages. Another assumption made to support these relationships is that as the organisation ages, its size is expected to

increase (Baum, 2000). Older and larger organisations are more exposed to external environment, which may require additional resources. This can be translated as increased board size and higher need for non-executives that can bring resources and at the same time control the firm.

Firm age is a decisive factor for the risk level that a company might bare, a negative relationship between firm age and corporate risk taking has been observed (Faccio et al., 2001). In addition, Madsen and Leiben (2015) analysing the determinants of persistence in innovation, concluded that older firms are more consistent with higher levels of innovation. Finally, firm age plays an important role in sector exit strategies, as older firms tend to be acquired by their competitors (Fortune and Mitchell, 2012).

Number of Years listed in the Stock Exchange: 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 and Dalton, 1994), while Greek Law No. 3016/2002 implies that independent non-executive directors should account for one third of the Board, with no less than two 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 period a corporation is listed in a Stock Exchange can affect its governance mechanisms and performance (Loughran and Ritter, 1995; Aggarwal, Leal and Hernandez, 1993; Levis, 1993; Ritter, 1984). Listed companies have more formalised boards, more frequent meetings, and provide financial information to the public so as to carry out board functions and fulfil legal responsibilities (Demb and Neubauer, 1992). In listed companies, boards have more formal channels of communication due to the increased exposure to the public that attracts investors' attention on corporate governance. This formality and pressure from the outside should lead to more proper and transparent processes for selecting and dismissing CEOs (Long, Dulewicz and Gay, 2005).

Therefore, it is assumed that 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. Moreover, the more the years an organisation has been listed, the more it is expected to comply with policies and legal requirements. Boone et al. (2007), 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 (Gkliatis et al., 2009; Denis and Sarin, 1999) 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.

3. Methodology

The economic state of Greece has made many headlines the previous decade and was one of the most well debated topics in the political, economical and business arena. Therefore, it is important to understand the how businesses were governed during the pro-crisis period. In addition, Greece's strategy for sustainable growth is linked with the expansion of Greek capital to other countries of the Balkans. Greece is placed ideally as a crossroad between Europe, Asia and Africa. Not only it has strong ties with neighbouring counties such as, Albania, Bulgaria and Serbia but it also acts as a getaway for countries further east and south. A recent example is the important Chinese investments in Greece as part of the "Belt and Road initiative" strategy (EBRD, 2018). The importance of manufacturing for Greece is multifaceted. Not only manufacturing accounts for 10% of the Greek economy (IHS Markit, 2018), but it is also related with one of the most improved economic indices, that of exports. According to Panhellenic Exporters' Association (2019a; 2019b) Greek manufacturing companies have sifted their efforts from serving the internal market to exporting and they have played pivotal role to the improvement of the economic situation in Greece.

This paper focuses on the pro-crisis period in Greece, trying to highlight the corporate governance mechanisms in one of the most important sectors for the country. Apart from the importance of manufacturing for Greece, another reason for selecting this economic sector is that is used in many other corporate governance studies (Sueyoshi, Goto and Omi, 2010; Chiang and Lin, 2007; Destefanis and Sena, 2007; Gillan and Starks, 2000).

Sample: The sample consists of all 161 Greek manufacturing companies that were listed in the Athens Stock Exchange on the 31st December 2008. The main source used for the data collection was the Athens Stock Exchange website (http://www.helex.gr/). In case that full data could not be found for some of the companies, the websites and annual reports of the respective companies were also scrutinized.

Measurements:

Board size was measured by the absolute number of directors.

Board leadership structure (Duality): Board leadership structure was determined by assessing if the roles of Chairperson and CEO are combined to one individual. Within companies that employed the separate structure, a simple criterion of affiliation was examined. The surnames for the 2 persons sitting on the Chairpersons-CEOs positions were checked and in the cases that were identical, were classified as separate but affiliated.

External Independent Directors: This variable was measured by finding the absolute number of external directors on the board. Then, these were separated in dependent (affiliated) and independent.

Proportion of Independent Directors to the board size: After finding the absolute number of independent directors in each board, the fraction of independent directors to total board size was measured to find the proportion of independent to total directors.

Organisational size: This variable measured with the absolute number of employees based on the information provided by the ATHEX website and was re-classified into 4 major groups; up to 50 employees, 51-250, 251-500 and 501 and over.

Organizational Age: The variable was measured by noting the year of establishment of the respective company. Three age groups were created and these categories according to the year of establishment were: up to 1970, 1971-1989 and 1990 to 2008.

Years Listed in the ATHEX: The year of entrance in the ATHEX was noted for each company and then three categories were generated to group the companies: Veterans (included the companies that went public earlier than 1980), Mature (from 1980 to 1999) and finally Neophytes (2000-2007).

ANOVA tests: ANOVA was used to examine whether there are significant differences in board size, number of independent directors and proportion of independent directors to the board size, in organisations of different size, age and the years being listed in the stock exchange. Specifically, the organisational characteristics were split in groups and an investigation of statistical mean differences among these groups—in terms of the board characteristics—was performed **(Figure 1)**.

4. Findings

4.1 Descriptive Findings

The results show some important elements of the status of Board of Directors in the listed companies at the Athens Stock Exchange.

Board size: The average number of directors was 7.4, while 99 (61.5%) companies had 5 to 7 board members. HOCG (2011) found that the average board size for the listed firms in Greek stock market in 2009 was 8.03 and in 2010 was 8.05. Gill and Mathur (2011) in their research about Canadian manufacturing firms found that the average board size for the period 2008-2010 was 7.47.

Board Leadership Structure: There were 92 (57.1%) companies (n=161) that adopted a separated board structure. However, in 35 (21.7% of total sample) of the above cases although job separation existed, strong indications of affiliated status (based on a common surname) were present. On the other hand, a joint structure was employed by 69 (42.9%) of the listed companies. HOCG (2011) found that 60.3% of the listed companies preferred the separated board structure, whilst 39.7% of the Greek listed companies had one person serving as CEO and Chairman. Goh et al. (2014) in their research about Malaysian manufacturing firms found a joint structure in 33% of the companies.

Board composition: 571 out of the 1191 positions held by the directors were internal, while 615 of them were external positions (there were five positions for which the status was not found). On average 3.6 members were characterized as internal board members, while 118 of the boards (73.3%) employed 2 to 4 internal directors. On the other hand, the average for external board members was 3.82, with 118 (74.6%) companies having from 2 to 4 external directors**.** Nevertheless, a closer examination on the data regarding the External/Non-Executive Directors revealed that on average 1.49 (39%) of those 3.82 external directors were affiliated or dependent. It is worth mentioning that only 42 (26.1%) of the listed companies had no externals that are dependent.

Furthermore, boards in Greek listed companies had on average 2.3 independent board members (61% of the 3.82 external members/company), with 130 (80.7%) companies having exactly 2 independent members (HOCG, 2009).

HOCG (2011) found that the average number of internal directors for 2010 was 3.38.

Company size: Only 16 (10.1%) of the companies (n=159) can be characterized as small (up to 50 employees), while 57 (35.8%) companies fall under the medium size category (51 to 250 employees) based on the European Union classification. In addition, 38 (23.9%) companies employ between 251 and 500 employees, while there are 48 (30.2%) of the companies that can be classified as large (over 500 employees).

Organisational Age: 52 (32.3%) companies listed in the ATHEX were established before 1970, while 83 (51.6%) of them were established between 1971 and 1989. The companies that were established after 1990 are 26 (16.1%). Jayawarna et al. (2007) in their study of the manufacturing SMEs in the United Kingdom found that the average organisational age was 28, with the majority of the firms (41%) to be between 11 and 20 years old. The younger firms (1-10 years) were the 28% of the sample and the older (>21 years) 31%. It is obvious that there are significant differences in the organisational of manufacturing companies between the two countries.

Years Listed in the ATHEX: Out of the 161 companies, 27 (16.8%) were classified as Veterans. The majority of the companies, being 95 (59%), were under the Mature group (50.7%) and the Neophytes were 39 (24.2%).

4.2 ANOVA Tests

Board size was found to be significantly different ($p<0.01$) among the four groups of company size **(Table 1)**. In addition, significant difference was found among groups of company size in terms of their independent ($p<0.01$) members. Finally, no significant difference was found in the means of proportion of independent members to the board size among the groups.

Furthermore, there are noticeable differences in the means of board size, independent members and the proportion of them to the total board size in terms of the different groups of age and listed years. However, while according to the review of the literature, there was an expectation for these differences to be significant, ANOVA results did not find any significance difference among these groups.

5 Summary, Conclusions and Recommendations

To sum up, the average board size is 7.4 members and about one third of the boards (35%) have chosen to appoint different persons in the leadership positions that are also independent. The internal members were found to be 3.6 per company and the externals were 3.82 but 1.49 of them were dependent to their companies. In addition, the findings on organizational characteristics, show that manufacturing companies are relatively old, large and with a long presence in the ATHEX. This conclusion becomes stronger if we compare to the service companies findings in the ATHEX for the same year (HOCG, 2009).

Moreover, while the findings do not support any significant relationship of board characteristics with the age of the organisation and the period it has been listed in the stock exchange, some useful conclusions can be provided, in relation to the size of the organisation. The findings showed that larger organizations tend to have larger boards and greater proportions of external and independent directors. This may be explained by the fact that larger organizations are more complex and as a result they require more directors to be successfully governed. This can be further argued by considering the roles of board directors as found in the literature (e.g. Zona et al. 2013; Hillman and Dalziel, 2003; Forbes and Milliken 1999)—mainly described as monitoring and providing service/resources to the organisation. It is assumed that the larger the organisation the more exposed it is to the public and the more pressure for increased accountability and performance.

A potential limitation that should be taken into account is that the dependent variables tested through analysis of variances technique are most likely interdependent—and correlated—which suggests that they should be re-examined. Specifically, this can be easily argued by understanding the relationship of the independent directors to the boards. Most corporate governance codes (e.g. UK corporate Governance code, 2016; the Higgs review, 2003; Vienot report, 1999) strongly suggest that a board should have a minimum of one third of its members being independent. This clearly correlates the board size with the independent directors as the larger the board, the more the independents. This is why the meta-variable 'Proportion of Independent to the board size' was considered appropriate for inclusion, however it was not found significantly related to the organisational characteristics and further investigation is proposed.

Furthermore, it would not be right to generalise the findings, as it would improve validity if data in time series of three or five or more consecutive years was used. During the period of data collection, the activities of the Greek listed companies might have been influenced by external factors, i.e. the economic crisis. Second, the sample of this study consisted of a cross-section of firms of different sizes, ages, and operating in one broad sector (i.e. manufacturing), which cannot provide safe conclusions regarding the corporate governance practices and for all Greek listed and non listed firms.

Further research may assess this topic by the use of more independent variables, such as the rate of firms' internationalization and more dependent variables such as the presence of interlocking directorates. Additionally, different findings may be provided by examining service companies and/or companies in other countries. The current study offers additional understanding on the relation between board characteristics and organizational demography. To conclude, further research is recommended in order to collect new data on the existing variables to further examine the relationships. Future studies can focus on different markets/sectors, which can add more insight on the nature and extent of the proposed relationships.

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Figure 1

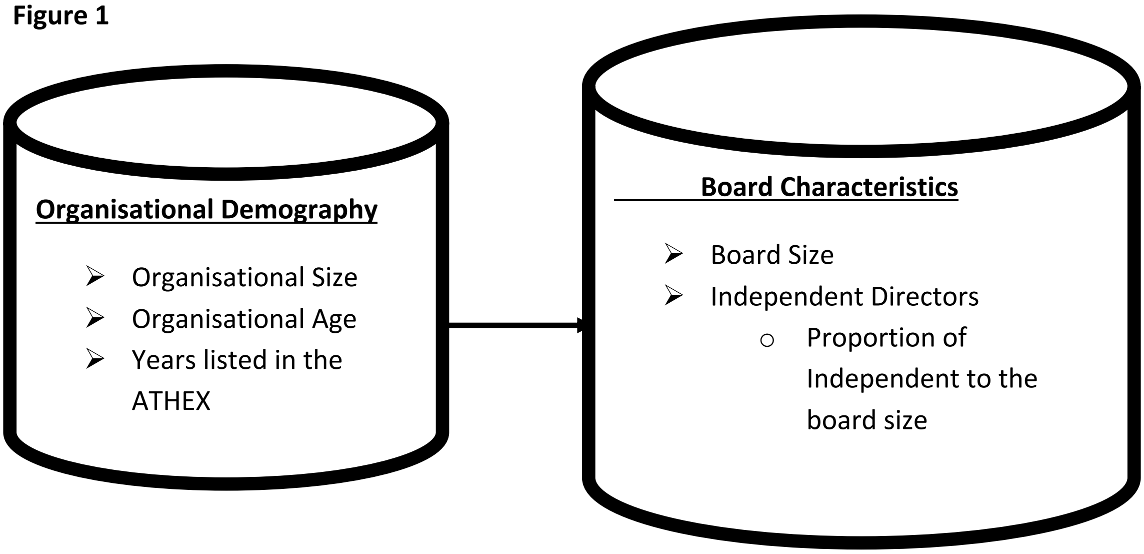
Organisational Demography
Organisational Size
Organisational Age
Years listed in the ATHEX
Board Characteristics
Board Size
Independent Directors
Proportion of Independent to the board size

Table 1: ANOVA Results

Dependent	***Board Size***		***Independent Members***		***Proportion of Independent to the board size***		Sig. level
Independent	Mean	F	Mean	F	Mean	F	
Organisational Size A. up to 50 B. 51 to 250 C. 251 to 500 D. more than 500	 6.19(n=16) 6.61(n=57) 7.45(n=38) 8.56(n=48)	10.607**	 1.94(n=16) 2.21(n=57) 2.26(n=38) 2.71(n=48)	3.325*	 0.331(n=16) 0.344(n=57) 0.322(n=38) 0.320(n=48)	0.422	*p<0.05; **p<0.01
	Tamhane’s test* D>A; D>B						
Organisational Age (year of establ.) A. up to 1970 B. 1971-1989 C. 1990-2007	 7.90(n=52) 7.23(n=83) 6.92(n=26)	2.341	 2.48(n=52) 2.27(n=83) 2.31(n=26)	0.713	 0.321(n=84) 0.329(n=132) 0.343(n=77)	0.307	*p<0.05; **p<0.01
Year listed in the ATHEX A. Veterans (earlier than 1980) B. Mature (1980-1999) C. Néophytes (2000-2008)	 7.56(n=27) 7.41(n=95) 7.26(n=39)	0.155	 2.56(n=27) 2.27(n=95) 2.36(n=39)	0.790	 0.348(n=27) 0.318(n=95) 0.340(n=39)	0.978	*p<0.05; **p<0.01