# THE BOARD OF DIRECTORS AS ONE OF THE MECHANISMS OF CORPORATE GOVERNANCE AND ITS IMPACT ON THE PERFORMANCE OF TURKISH FAMILY COMPANIES: A SURVEY

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## THE BOARD OF DIRECTORS AS ONE OF THE MECHANISMS OF CORPORATE GOVERNANCE AND ITS IMPACT ON THE PERFORMANCE OF TURKISH FAMILY COMPANIES: A SURVEY

#### Abstract

Board of directors, one of the four structural elements of corporate governance, has attracted a great deal of attention in the past fifteen years due to corporate failures, concerns about the performance of corporations and the way they are governed. Inefficient government of companies was shown as one of the main reasons of the ongoing international and domestic financial crisis, bankruptcies and company frauds.

As an emerging market, Turkey's ability to attract international capital is relatively low. Analysis of the extant literature on Turkish companies indicate that a majority were founded and governed by families where only a small percent can survive into the third generation. This brings the necessity to examine the management and control systems and the board of directors in detail to achieve sustainable development in family companies.

The main purpose of this study is to empirically analyze the relationship between the company performance of Turkish listed companies in Istanbul Stock Exchange and the compliance levels of the board processes to the corporate governance principles issued by Capital Markets Board of Turkey.

#### KURUMSAL YÖNETİM İLKELERİ MEKANİZMALARINDAN YÖNETİM KURULU İŞLEYİŞİNİN TÜRK AİLE ŞİRKETLERİ ÜZERİNDEKİ ETKİLERİ KONUSUNDA BİR ARAŞTIRMA

#### Özet

Kurumsal Yönetim mekanizmasının en önemli yapı taşı olan Yönetim Kurulları geçtiğimiz son onbeş yılda şirket başarısızlıkları, şirket performansları ile ilgili endişeler ve yönetim sorunları gibi nedenlerle dünya çapında büyük ilgi odağı haline gelmiştir. Yaşanan küresel mali krizlerin, şirket iflaslarının ve yolsuzlukların önemli boyutlarda gerçekleşmesinin nedenleri arasında Yönetim Kurulu işlevlerinin yetersiz olması gösterilmektedir.

Türkiye gelişmekte olan bir pazar olarak yabancı yatırımcıyı kendine çekme konusunda dünya ülkelerinin pek çoğundan geri konumdadır. Literatür incelendiğinde Türk firmalarının büyük çoğunluğunun aileler tarafından kurulup yönetilmekte olduğu ancak aile şirketleri yaşam evresinin ancak üçüncü kuşağa kadar sürebildiği gözlenmektedir. Bu durum sürdürülebilir başarı için gereken yönetim ve kontrol sistemlerini ve şirketlerinin beyni olarak tanımlanan yönetim kurullarını mercek altına almayı zorunlu kılmaktadır.

Bu çalışmanın amacı İstanbul Menkul Kıymetler Borsasında işlem görmekte olan aile şirketlerinin performansları ve yönetim kurulları işlevleri arasındaki ilişkiyi analiz etmek ve açıklamaktır. Çalışmada Yönetim Kurulu işleyişinin SPK kurumsal yönetim ilkelerine olan uyumluluğu ile şirket performanları arasındaki ilişki ampirik olarak incelenmektedir.

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#### **List of Abbreviations and Terms**

**BOD** - Board of Directors

**CG** - Corporate Governance

**CEO** - The chief executive officer is the individual who is responsible for the implementation mentioned under the articles of association at the highest level.

CMB - The Capital Markets Board of Turkey

ISE - Istanbul Stock Exchange

**ROI** - Return on investment, a performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. It is the ratio of money gained or lost on an investment relative to the amount of money invested. Monthly and compounded returns of stocks were calculated by using the closing prices on the last trading day of each month.

**ROE** - Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

**ROA** - Return on assets, an indicator of how profitable a company is relative to its total assets.

**OECD** - Organisation for Economic Co-operation and Development

#### Chapter 1

#### Introduction

While corporate governance literature recognizes the pivotal role played by the board of directors in maintaining an effective organization (Prevost et al., 2002), there are very few studies on the conduct and behavior of boards of directors (Pettigrew, 2002), with these studies concentrating mostly on the relationship between company performance and the trio of board attributes: size, leadership structure and composition. But these studies in general have failed to find any conclusive effect of these attributes on company performance.

A significant increase in research has been documented in recent years regarding corporate governance. This increase may have been triggered partly by a series of major corporate scandals, both in the U.S such as Enron Tyco and World.Com, and in Continental Europe like Parmalat and Maxwell publishing group. These corporate scandals have revealed insufficient board supervision and failure which lead to substantial loss of shareholder and stakeholder values (Petra et al, 2005).

Regulatory reforms in the USA such as the Sarbanes-Oxley Act (2002), in Europe Organization for Economic Co-operation and Development (OECD) Principles on Corporate Governance (2004), and more specifically the corporate governance codes and reports in the United Kingdom such as Cadbury 1992, Greenbury 1995, Hampel 1998, Tumbull 1999 and Higgs 2003 are pushing companies for greater transparency and accountability in areas such as board structure and operation, the establishment of board monitoring committees and to re-think issues regarding governance principles alongside firm's performance. (Weir and Laing, 2001).

After the corporate governance scandals of US corporations, OECD designed and implemented 'The OECD Principles of Corporate Governance' in 1999 which have since become an international benchmark for policy makers, investors, corporations and other stakeholders worldwide.

In parallel with the OECD Principles, the Capital Markets Board of Turkey (CMB) has established the 'Corporate Governance Principles Capital Markets Board of Turkey 2003' which was amended in Feb 2005. In Turkey, there is no obligation to implement the Corporate Governance Principles of CMB; it is optional. However, every listed company in the CMB must disclose a report concerning the implementation status of the Principles to the public.

CMB recommended that companies should adopt a governance structure that complied with a specified set of criteria. The appropriate system was detailed in the CMB corporate governance compliance principles. The inference to be drawn is that these governance structures should provide more effective monitoring of the board and the decision-making process. This in turn should improve performance because the monitoring mechanisms would ensure that shareholder interests were being promoted.

#### 1.1 Good Governance and Growth Opportunities

Corporate governance is one key element in improving economic efficiency and growth, as well as enhancing investor confidence. Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders, and should facilitate effective monitoring.

Empirical studies indicate that international investors now better realize the significance of corporate governance practices on the financial performance of companies than ever before and while adopting investment decisions, international investors believe that this issue bears more importance for countries that are in need

of reforms, and that they are more ready to pay higher premiums for companies having sound corporate governance practices.

The proper implementation of governance may be related to external financing. La Porta et al., (1998) argue that greater investor protection increases investors' willingness to provide financing and should be reflected in lower costs and the greater availability of external financing. This shows that firms with the greatest need for financing in the future will find it beneficial to adopt better governance mechanisms today.

Companies with good growth opportunities will need to raise external financing in order to expand. Therefore they find it optimal to improve their governance mechanisms as better governance and better minority shareholder protection will be likely to lower their costs of capital (La Porta et al., 2000; Himmelberg et al., 2002). More external financing results in profitable investment opportunities and firms with greater external financing are likely to have better corporate governance (Durnev and Kim, 2005).

When discussing the effects of the board practices on companies, it is assumed that the board of directors influences the strategic direction and performance of the corporations they govern (Beekun, and Young, 1998). Board structure aims at increasing the credibility and effectiveness of the companies and formulating specific strategies by aligning the interests of management and suppliers of capital.

According to Craig and Moores (2002), the inability of the board of directors to fulfill their responsibilities may be extremely harmful to the company. The lack of governance results in serious disadvantages. These could range from financial restraints to poor organizational cultures.

#### 1.2 Research Objectives

The main purpose of this research is to examine the board of directors section of the corporate governance guidelines of CMB and to analyze whether companies complying with CMB principles deliver higher returns and higher value for investors.

This study investigates the extent of the board of directors to fulfill their responsibilities by establishing a relationship with the organizational performance of Turkish family companies.

The degree of the board of directors to fulfill their responsibilities is measured by the compliance levels of the companies with the Corporate Governance Principles, Section Four: Board of Directors. Organizational performance is measured by yearly stock returns of the companies.

Thus, the study initially discusses issues regarding board size, ownership structure and CEO dependence/independence as well as their performance implications. It proceeds to investigate the relationship based on 90 organizations listed in the Istanbul Stock Exchange (ISE). Finally, recommendations and suggestions for future research are discussed.

As corporate governance practices are directly related to the survivability of companies, this study may offer suggestions to the boards of low-performing Turkish family companies by identifying common board structures of high-performing firms.

Moreover, this study is expected to contribute to the corporate governance literature in emerging countries, specifically in countries having family ownership industry structure and at the beginning stage to adapt their companies to corporate governance.

The remainder of the study is structured as follows. The literature review and hypotheses are presented in corporate governance and family companies sections. The subsequent section discusses the methodology of this study, followed by the results and discussion. In the final section, the conclusion will be provided.

#### Chapter 2

#### **Corporate Governance: Definition and Basic Concepts**

Corporate governance could be understood as a set of processes, customs, policies, and institutions that are used to administer, control and direct a corporation. It also involves the relationships among many players and the owners of the corporation. Generally, the main players in corporate governance are managers, shareholders, and the board of directors.

Much of the recent interest in the field of corporate governance has been driven by corporate scandals in the USA, which has been highlighted by the OECD: "Recent corporate scandals have focused the minds of governments, regulators, companies, investors and the general public on weaknesses in corporate governance systems and the need to address this issue" (OECD, 2004). As a result, governments and financial market regulatory bodies have proposed or put in place various changes relating to directors' responsibilities, the role of independent directors, new and/or more stringent external reporting requirements and minimum disclosure levels.

A dominant focus of the changes is on strengthening the role and function of the board. The overall goal is an attempt to significantly reduce opportunities for corporate mismanagement and instances of corporate collapse, and thereby provide better protection for shareholders and other business stakeholders.

#### 2.1 Premiums for Good Governance

In theory, good corporate governance should be related to high-corporate valuation. The latest empirical studies indicate that international investors now realize the significance of corporate governance practices on the financial performance of companies better than ever before. The studies have found that investors are willing to pay a premium averaging 10-12 percent for good corporate governance. They also show that while adopting investment decisions, these investors believe that this issue bears more importance in countries where reforms have not been implemented, and that they are ready to pay higher premiums for companies having sound governance practices.

Figure 2.1 illustrated in McKinsey's 2002 "Investor Opinion Survey" indicates that investors are willing to pay a premium of 27 percent for a well governed company in Turkey (McKinsey, 2002).

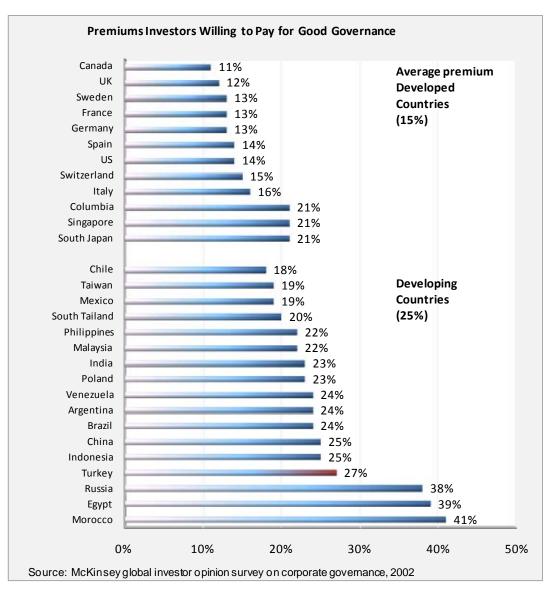


Figure 2.1. Premiums and Good Governance.

#### 2.2 Corporate Governance Mechanisms

According to Jensen (1993) and Denis (2001), corporate governance has historically been achieved using a combination of four mechanisms:

#### 2.2.1 Legal and Regulatory

Legal and regulatory mechanisms are externally imposed on organizations, and encompass rules and regulations put in place by governments, stock exchanges and other regulatory bodies.

#### 2.2.2 Product and Market Competition

Product and market competition is perhaps potentially more effective today than in the past due to the impact of globalization and relatively low or non-existent tariffs on the import/export of many manufactured goods and services. Therefore, in the current business environment, few firms have the luxury of serving a local, protected marketplace. External control and product market competition are strongly free-market orientated in their operation.

Reliance on these mechanisms is based on the firm belief that the disciplines of the market-place can achieve effective corporate governance. However, these are relatively weak and reactive rather than proactive tools of corporate governance.

#### 2.2.3 External Control (Capital Markets)

External control occurs when outsiders acquire large blocks of shares and impose a more disciplined approach on company operations and corporate governance procedures. In this way, non-executive owners can exert a high degree of external (and also internal) control by closely scrutinizing the actions of senior management.

#### 2.2.4 Internal Control

Internal control is one of the most important mechanisms of delivering accountability and enables organizations to monitor and control their operations. Legal, regulatory and internal control mechanisms have more and more been the focus of governments and regulatory bodies as a response to the corporate scandals and collapses of recent years.

The primary thrust of corporate governance is increasingly toward legal and regulatory and internal control mechanisms. Reliance on external control and competitive markets is seen as more risky and problematic due to its generally lagging and reactive nature. The aim of legal and regulatory and internal control mechanisms is more proactive corporate governance.

A company's board of directors functions as the highest internal corporate governance mechanism (Jensen, 1993). Internal control, which is also subject to external regulation, is largely concerned with board decisions about the *size*, composition and function of the board of directors.

In this study the responsibilities of the board, a prime topic of firm's internal control mechanism is discussed in detail and is used as a central point to design the framework.

#### 2.3 The Evolutionary Theories of Corporate Governance

The configuration of the board structure has been a topic of increased attention in the disciplines of economy (Jensen and Meckling. 1976), finance (Fama, 1980), sociology (Useem, 1984) and strategic management (Boyd, 1995). Numerous corporate governance theories have been developed (agency theory, stewardship theory, resource dependence theory and stakeholder theory), which will be briefly discussed.

#### 2.3.1 Agency Theory

Agency theory has been the dominant approach in the literature of economics and finance (Fama and Jensen, 1983) and describes the relationship between two parties with conflicting interests: the agent and the principal (Jensen and Meckling, 1976). For agency theorists, the role of the board is to authorize and monitor the decisions of the top management team (Fama and Jensen, 1983).

Agency theory is concerned with aligning the interests of owners and managers and it is based on the assumption that there is an inherent conflict between the interests of a firm's owners and its managers (Fama and Jensen, 1983; Fama, 1980; Jensen and Meckling, 1976).

Agency theory underlines the importance of monitoring and the governance functions of boards (Zahra and Pearce, 1989); and the need for establishing mechanisms in order to protect shareholders from any management conflict of interests (Fama and Jensen, 1983). It finally suggests that boards should have a majority of outside and independent directors and that the position of Chairman and CEO should be separate (Daily and Dalton, 1994a).

#### 2.3.2 Stewardship Theory

In contrast to agency theory, stewardship theory suggests that there is no conflict of interest between managers and owners and a successful organization requires a structure that allows the coordination of both parts (Donaldson and Davis, 1991, 1994). Stewardship theorists argue that executives serve both their own but also their shareholders' interests (Lane, Cannella and Lubatkin, 1998). They argue that superior corporate performance is associated with there being a majority of *inside directors* because, firstly, they ensure more effective and efficient decision-making and secondly, they contribute to the maximization of profits for shareholders (Kiel and Nicholson, 2003).

#### 2.3.3 Resource Dependency Theory

Resource dependency theory proposes that actors lacking in essential resources will seek to establish relationships with (i.e., be dependent upon) others in order to obtain needed resources. The corporate board is a mechanism for managing external dependencies (Pfeffer and Salancik, 1978), reducing environmental uncertainty (Pfeffer, 1972) and the environmental interdependency (Williamson, 1984). It also views outside directors as a critical link to the external environment (Pfeffer and Salancik, 1978). This perspective advocates the appointment of representatives of significant numbers of external voters as outside board members. This is considered as a strategy for managing an organization's environmental relationships. *Outside directors* can provide access to valued resources and information (e.g., Bazerman and Schoorman, 1983; Pfeffer and Salancik, 1978; Steams and Mizruchi, 1993). For instance, outside directors who are also executives of financial institutions may contribute to the securing of favorable lines of credit (e.g., Steams and Mizruchi, 1993).

#### 2.3.4 Stakeholder Theory

Finally, stakeholder theories include all the important consistencies of the firm in its governance mechanisms and stress their fundamental importance. In defining stakeholder theory, Clarkson (1994) states that: a "Firm is a system of stakeholders operating within the larger system of the host society that provides the necessary legal and market infrastructure for the firm's activities. The purpose of the firm is to create wealth for its stakeholders by converting their stakes into goods and services". Since the stakeholders (i.e. employees, owners, investors, customers, government, community) of the firm provide the essential inputs and infrastructure in order to be achieved, it follows that *stakeholders should be included* in the government mechanism. Their inclusion, however, in the corporate governance mechanisms should be limited to the extent that their interests are threatened because they usually lack the managerial knowledge and long-term experience to take strategic decisions.

In this context, the corporate governance theories emphasize that the government structure, the inclusion of outside directors, stakeholder participation, the board configuration and its independence are of great significance.

#### 2.4 Evolutionary Theories of Board Characteristics and Firm Performance

The determinants of strong board characteristics are summarized by reviewing the theoretical and empirical literature.

#### 2.4.1 Board Size

Board Size is a major element of board structure (Daily and Dalton, 1992) and board reform (Chaganti, Mahajan and Sharma, 1985). Board size can range from very small (5 or 6) to very large (30 plus) (Chaganti, Mahajan, Sharma, 1985). There is a view that larger boards are better for corporate performance because they have a range of expertise to help make better decisions and are harder for a powerful CEO to dominate. Larger boards also, prevent the CEO from taking actions that might not be in the shareholders' interests (Singh and Harianto. 1989).

However, several studies support the idea that large boards can be dysfunctional. Jensen (1993), and Lipton and Lorsch (1992) argue that large boards are less effective and are easier for the CEO to control. When a board gets too big, it becomes difficult to co-ordinate and often creates problems. Also, a smaller board has the ability to adopt and exercise a controlling role (Chaganti, Mahajan and Sharma, 1985). In general, it is suggested that smaller boards are best (about seven or eight members), and that the majority of directors should be independent (Denis, 2001).

#### 2.4.2 Board Meetings

Various studies suggest that boards should balance the costs and benefits of the frequency of meetings. Shivdasani and Zenner, (2004) suggest that boards should be ready to increase the frequency of the meetings if the situation requires a high level

of supervision and control. Similarly, if the board increases the frequency of its meetings, the recovery from poor performance is faster (Vafeas, 1999).

#### 2.4.3 Board and Staff Skill Levels

The level of training among board members and mangers could have a strong influence on the performance of the firm. Lybaert (1998) argues that better performance is due to the proven positive relation of higher levels of education among entrepreneurs and their willingness to use external information, develop networks, make use of consultants or develop more detailed accounting and monitoring.

#### 2.4.4 Board Composition - Independent Members

Board composition refers to the mixture of outsiders and insiders on a board of directors. Insiders are generally defined as those directors who also hold management positions in the firm, while outside directors have generally been defined as independent members of the board (Johnson *et al.*, 1996). Researchers have been divided on the issue of board composition, with some advocating an outsider-dominated board and others an insider-dominated board.

Agency theorists have suggested that inside directors may be more inclined to act opportunistically, to avoid work when they can, and to behave in ways that may constitute a moral hazard (Donaldson, 1990; Williamson, 1984). Proponents of this view claim that board structures should have a majority of independent directors.

Another argument in favor of independent directors is that inside directors may have a more difficult time providing objective assessments about managerial activity (Johnson *et al.*, 1996). The reasons for this might include underlying loyalties to the CEO, or perhaps a fear of what might happen if they treat the CEO or other managers in an adverse way. Additionally, independent directors may be in a better position to provide certain types of advice and counsel to the CEO to which insiders may not have access (Daily and Schwenk, 1996). The thought here is that the CEO may find it helpful to obtain unique perspectives from individuals from outside the company

(Stewart, 1991). Independent non-executive chairmen are more likely to provide objective opinions on proposals, be more effective decision monitors and be more likely to promote shareholder interests.

Other researchers have taken the opposite view, inside directors are more familiar with the firm's activities and they can act as monitors to top management if they perceive the opportunity to advance into positions held by incompetent executives.

#### 2.4.5 Existence of Audit Committees

Audit committees are in the best position within the company to identify and act in instances where top management seeks to misrepresent reported financial results. An audit committee composed entirely of outside independent directors can provide independent recommendations to the company's board of directors.

#### 2.4.6 Executive/Non-executive Board Members

Some scholars argue (e.g., Jensen and Meckling, 1976; Kesner et. al, 1986) that the board of directors should be non-executive. They suggest that the board should be composed mainly of independent outsiders and should have an independent outsider as Chairman (Donaldson and Davis, 1994). Daily et al. (1998) proposed that the presence of executive directors leads to conflicts of interests due to their relationship with the firm.

In contrast, stewardship theory suggests that executive directors or Chairpersons may feel aligned with company's future performance because of their long-term employment and the close working relationship with the CEO. Thus, it may be argued that a separate but executive board structure tends to develop trust and empowerment and provides the ease of communication needed for effective functioning (Muth and Donaldson, 1998).

A number of empirical studies on non-executive directors support the beneficial monitoring and advisory functions to firm shareholders Baysinger and Butler (1985) showed that the market rewards firms for appointing non-executive directors.

#### 2.4.7 Joint CEO/Board Chair Structure

A joint CEO/Board Chair Structure, also known as CEO duality, occurs when one individual holds the two most powerful posts on the board of directors, namely those of CEO and Chairman.

In serving simultaneously as CEO and Chairperson, a CEO will be likely to have greater status and influence among board members (Harrison, Torres and Kukalis, 1988) and thus hindering the boards' independent monitoring capacity (Beatty and Zajac, 1994).

Agency theorists assume that boards of directors strive to protect the shareholders' interests (Fama and Jensen, 1983) and thus suggest a negative relationship between CEO duality and firm performance (Finkelstein and D'Aveni, 1994; Rechner and Dalton, 1989; Donaldson and Davis, 1991). Therefore, they support the idea that the separation of the jobs/roles of CEO and Chairperson will improve organizational performance, because the board of directors can better monitor the CEO (Harris and Helfat, 1998).

In contrast to agency theory, the leadership perspective suggests that a firm will perform better if one person holds both titles, because the executive will have more power to make critical decisions (Harris and Helfat, 1998). Furthermore, steward theorists argue that if one person holds both positions, the performance might be improved, as any internal and external ambiguity regarding responsibility for organizational outcomes is being minimized (Finkelstein and D'Aveni, 1994; Donaldson, 1990). It also proposes that CEO duality would facilitate effective action by the CEO and consequently improves the organizational performance under specific circumstances (Boyd, 1995). Pfeffer and Salancik (1978) argue that a single leader can respond to external events and facilitate the decision- making process.

Harrison, Torres and Kukalis (1988) suggest that CEO duality facilitates the replacement of the CEO in poorly performing companies. Additionally, Worrell and Nemee (1997) and Dahya et. al. (1996) reported that the consolidation of the CEO and chair positions is positively related to shareholder return. Finally, vigilant boards

tend to favor CEO duality when performance is poor, because there is no threat of CEO entrenchment in poorly performing firms.

The separation of the functions of the CEO and the Chairman of the board has been commonly suggested by practitioners and shareholder rights activists **as** an important condition for avoiding the conflict interest between the corporate constituencies and the management, as well as for improving the board governance (e.g., OECD, 2004; Monks and Minow, 2001; Baysinger and Hoskisson, 1990).

However, Berg and Smith (1978) reported a negative relationship between duality and return on investment (ROI) and no correlation between return on equity (ROE) or stock price and firm performance. A complementary study of the same firms found that CEO duality is negatively related to ROE, ROI and profit margin (Rechner and Dalton. 1991). Additionally, Pi and Timme (1993) found a negative effect of duality to performance.

There is also conflicting evidence from the UK. Dahya *et al.* (1996) find positive evidence for splitting the roles of Chairman and Chief Executive. They find that the announcement that the roles are to be separated has a positive effect on share prices.

Overall there is little clear empirical support for the view that duality has a negative effect on performance.

### 2.5 Conceptual Framework for Performance Appraisal Method: Company Performance Indicators

The theoretical linkage between corporate governance and company performance originates from organizational theory literature. Daily and Dalton (1994) argue that centralized authority is related to governance structure and bankruptcy. The issue of the centralization of authority is applicable to the agency problem. Judge and Zeithaml (1992) find that high insider representation on boards is associated with lower board involvement in strategic decision making. Insiders are not in a position to monitor the CEO, and the domination of the board of directors by top management can lead to collusion and the transfer of stockholder wealth (Fama, 1980).

The inability of insiders to monitor the CEO and their lack of involvement in strategic decision making may be extremely harmful to the firm during a period of financial distress.

Baysinger and Butler's (1985) results indicate that the degree of financial health is affected by board composition since firms with above average performance have higher percentages of outside directors than firms with below average performance. Outside directors are believed to provide several advantages, as compared to their insider counterparts.

It may be characteristic of firms in persistent financial distress to have weak corporate governance, as measured by board composition and structure. In fact, Hambrick and D'Aveni (1992) report that dominant CEOs are more likely to be associated with the bankruptcy of a firm. Pfeffer (1972) finds that the percentage of insider directors is higher on the boards of declining firms. Expanding this rationale to financial distress, it can be assumed that financially distressed firms would be more likely to have boards of directors containing fewer outsiders (Daily (1995, 1996), Beasley (1996).

Cheng and Firth (2006) investigated the relationship between family ownership, top executive compensation and corporate governance. They used return on equity, (ROE), return on investment (ROI) and market to book ratio as company performance indicators.

Kula and Tatoğlu (2006) examined the relationship between board process attributes and the company performance of family-owned companies. Performance measures used are: growth in ROI, profits and market share.

Neumann and Voetmann (2005) examined the relationship between Company Performance and CEO turnovers by using earning per share ROI, free cash flow (FCF) and stock return as benchmarks of performance measurement.

Rubach and Picou (2005) examined the relationship between enactment of corporate governance guidelines and stock price reaction. ROI is used as a performance indicator.

Pajuste, A. (2002) offers analysis of corporate governance issues behind stock market performance stock returns and activity in nine Central and Eastern European (CEE) countries.

Shen and Cannella (2003) examined the relationship between investor reactions and CEO succession process. They used return on assets (ROA) for the firm performance measurement.

Elloumi and Gueyié (2001) examined the relationship between corporate governance characteristics and financially healthy and distressed companies. They used ROI for the firm performance measurement.

Black (2001) examined the relationship between Company Performance and Corporate Governance behavior for a sample of Russian Firms and used ROI for performance measurement.

#### 2.6 Corporate Governance in Turkey

Corporate governance in Turkey has been a topic of increased interest in boardrooms due to the current financial crisis, the desire to reduce economic backwardness, and international pressures toward a more market-based and shareholder-oriented model of governance.

The dominant non-governmental business structure in Turkey is the family-owned firm (Gunduz and Tatoglu, 2003). Even the large holding companies are family owned, and top positions are occupied by family members. Turkey offers a rich base from which to undertake empirical research in the areas of corporate governance and family business management. The family stands at the heart of Turkish society, with family relationships having significant influence on the lives of Turkish people, which in turn influences the pattern of conducting business in Turkey (Kabasakal and Bodur, 2002).

It is widely accepted that 30 percent of family firms survive into the second generation of family ownership, with only 15 percent surviving into the third generation (Morris et al., 1996).

The case may be even worse in Turkey with multiple domestic and international financial crises, family companies were forced to take on short-term financial debts with high annual interest rates to fund their capital expenditures. Most of the companies were unable to repay their debts to creditor banks due to some of the problems associated with mismanagement, agency problem and separation of ownership and control.

Since it has the status of a developing country, attracting an increase in the quality and quantity of international capital is essential to Turkey. The proper implementation of corporate governance principles is vital for the restructuring process of the Turkish capital markets and for attracting capital inflow into Turkey.

Corporate governance structure in Turkey is a new concept as the Istanbul Stock Exchange (ISE) is fairly new, having only been established in 1989. The average free float is 31 percent in the ISE and there are few public companies with more than a 50 percent free float. Besides, in more than half of the ISE companies, families hold the majority of the shares, making it very difficult to separate governance from management. An overwhelming 95 percent of Turkish companies are family-owned, and further empirical analysis of the Istanbul Stock Exchange reveals that 74 percent of listed companies come under family control. Additionally, corporate culture in Turkish firms has been characterized by non-formal relationships between owners and stakeholders (contractors, customers, financers, or the government) and is often based on traditional or personal ties. Turkey.

Demirag and Serter (2003) examined the ownership structure of Turkish listed companies. They found that majority of Istanbul Stock Exchange (ISE) 100 listed companies are owned and controlled by families; hence they suggested that the poor investor protection in Turkey might be a consequence of ownership concentration.

However, more importantly, the rights of the minority shareholders, who invested in the company buying the shares from the ISE, are not adequately protected.

Incekara (2009), states that in parallel with the stagnation of the world economy, foreign direct investment (FDI) in Turkey is decreasing. According to World Investment Report by United Nations Conference on Trade and Development (UNCTAD) 2007, the countries that attract the highest FDI are USA and UK. Among developing countries, China is the first with 85 billion dollars of investment. Turkey is the 23<sup>rd</sup> country in the rankings by attracting 22 billion dollars of FDI. Turkey's ability to attract international capital is relatively low when compared to other countries.

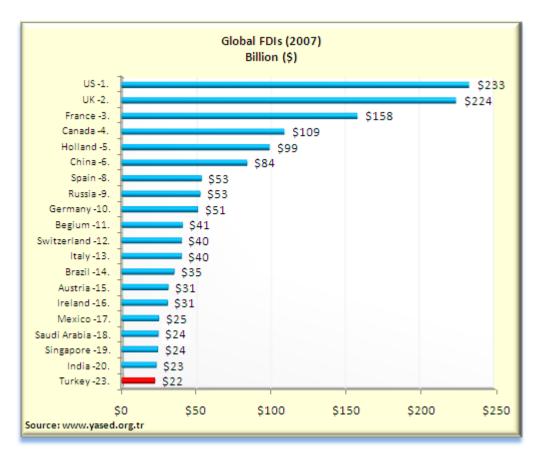


Figure 2.2 Global Foreign Direct Investment (FDI).

The ability to attract FDI has a great importance for developing countries. In addition to creating new employment areas and increasing capital stock based on advanced

technology, FDI makes significant contributions to economic growth. (İzmen and Yılmaz, 2009)

However poor governance is a major obstacle to attract international capital. A prime example of poor corporate governance and the unprotected nature of stakeholders' and shareholders' rights in Turkey is the disastrous business partnership of Telsim Mobil, the second biggest GSM operator in Turkey and the Uzan family and Motorola/Nokia. In January 2002, the two companies jointly filed a lawsuit in the U.S. District Court for the Southern District of New York to reclaim more than \$3 billion that had been secured with a pledge of 73.5 percent of equity in Telsim Mobil in the event of default.

The Uzan family, controlling owners of Telsim Mobil, is alleged to have diluted the pledged shares fraudulently to 24.5 percent by transferring assets to other Uzan family-controlled companies. The alleged transaction led to a considerable decline in the share value of Telsim Mobil. (Naipoğlu, 2004)

#### 2.6.1 TUSIAD - Corporate Governance Code of Best Practice

Although the subject of corporate governance is gaining increasing attention from both academic and business circles in Turkey, the first step towards the formation of a comprehensive framework was established by the Turkish Industrialists' and Businessmen's Association (TUSIAD). TUSIAD has since translated and published the OECD's Principles of Corporate Governance as well as a corporate governance code for Turkish firms. The primary study conducted by TUSIAD: The Establishment of a Working Group on Corporate Governance in 2000. TUSIAD assisted in the establishment of the Corporate Governance Institute in Turkey and it has initiated and undertaken important studies and policy advocacy.

TUSAID's primary tool for reform is a non-binding code for directors, the "TUSIAD Corporate Governance Code of Best Practice: Composition and Functioning of the Board of Directors." The code promotes sound board practices and encourages family-owned enterprises to implement the separation of ownership from management. The code also encourages Turkish firms to go public. One of the key

features of the TUSIAD code is that it addresses the apprehension that surrounds family owned enterprises; such enterprises are associated with the risks of the separation of ownership and control, and it specifically addresses these in a local context. The Turkish business community has responded to TUSIAD's initiatives by voluntarily developing and instituting corporate governance codes.

#### 2.6.2 CMB Corporate Governance Principles Concerning Board of Directors

Many countries, including those with developed economies, have reviewed their own legislation within the framework of the best corporate governance principles. For example, the United States of America has passed a new law (Sarbanes-Oxley) due to the corporate scandals of recent years. Similarly, Germany has adopted its corporate governance principles as a law in which the principles became a legal obligation. Furthermore, Japan has also re-examined and improved its corporate law, and Russia has announced its new corporate governance regulations.

In parallel with the current practices worldwide, the CMB has established the Corporate Governance Principles. Distinguished experts and representatives from the CMB, the Istanbul Securities Exchange (ISE) and the Turkish Corporate Governance Forum have participated in the committee that was established by the CMB.

Additionally many qualified academicians, private sector representatives as well as various professional organizations have stated their views and opinions, which were added to the Principles after the required evaluations.

Doğan Cansızlar the Chairman of the CMB of Turkey indicates that regulations of many countries have been examined, and generally accepted and recommended Principles; primarily the "OECD Corporate Governance Principles" of 1999 together with the particular conditions of Turkey have been taken into consideration during the preparation of these Principles.

The Principles will be used primarily by listed companies, as well as by joint stock companies, in both the private and public sector. The proper implementation of these principles is essential for the restructuring process of the Turkish capital markets, and

for attracting capital to Turkey. Even though every listed company in the CMB must disclose a report indicating the non-executive, or independent, board members, there is no requirement to have independent board members or to have any board committees. Observations and anecdotal evidence suggest that both the statutory boards and the executive boards are dominated by family members, and that they largely overlap. Non-executive directors are very rare and are generally found only in cases of significant foreign participation. In cases where the CEO is not a family member, he is usually a long-term acquaintance of the family. Family councils and family constitutions are also very rare.

According to the CMB bulletin (2008/12), even though it is optional to be compliant with the principles, it is **obligatory** to disclose a *corporate governance principles compliance report* for every listed company.

The fourth section of the Principles, the **Board of Directors** includes the functions, duties, obligations, operations and the structure of the boards of directors.

In Figure 3.1 the proposed attributes of BOD as defined in CMB Corporate Governance Principles is illustrated.

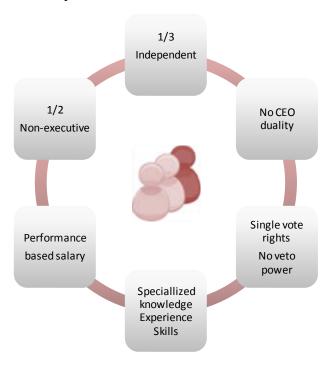


Figure 2.3 BOD Attributes as Recommended in the CMB Corporate Governance Principles.

In the methodology section of this thesis, the majority of the questions in the survey is developed from the structure and composition of the board of directors of CMB corporate governance principles and will be examined and discussed throughout this study.

Following is a brief summary of CMB corporate governance principles, board of directors section. (2003)

#### i. Independent Members

The *Principles* pay special importance to an effective election of the board of directors. It requires companies to provide, to all shareholders, detailed information regarding the board nominees' relations with the Company and other companies, their personal and educational backgrounds, their assets, and whether or not they meet the required criteria for independence.

It is suggested that board members be divided into two classes: (i) executive members; and (ii) non-executive members. In this section, whether board members are *executive*, *non-executive* and/or *independent* will be disclosed. If the board Chairman and executive Chairman/General Director are the same person and/or more than half of the board members have executive duties, reasons for these matters will be disclosed. Likewise in cases where there are no *independent members* on the board, or independent members are less than two, or less than one third of the number of members on the board, the reasons for these matters will also be disclosed.

Furthermore in this section, whether duties carried out by board members outside of the company - i.e. in other business, have been regulated by rules and/or restricted in any way, and if there is no restriction the reasons for that will also be disclosed.

#### ii. Qualifications of Board Members

Whether minimum qualifications required for the election of board members of the company coincide with the qualifications stated in CMB, and whether principles for this have been regulated in the articles of association will be disclosed.

If any *training* and *adaptation program* has been given to board members who do not have the aforementioned qualifications, subjects covered by the adaptation program, the work of the corporate governance committee on this subject and the reasons for not complying with this principle will be disclosed.

# iii. Authority and Responsibilities of the Members of the Board Directors and Executives

In this section, whether the authorities and responsibilities of board members and company executives have been explicitly regulated in the articles of association and if not reasons for not doing so will be disclosed.

# iv. Principles of Activity of the Board of Directors

In this section, the method followed to determine the agenda of *board meetings*; the number of meetings held in the related period; whether reasonable and detailed grounds for *dissenting opinions* discussed in the meeting have been written in the minutes of the meeting, and legal company auditors have been informed in writing will be disclosed.

Whether the grounds of dissenting opinions on issues which independent board members have different views on have been made public; whether questions of a member in the meeting have been recorded in the minutes of the meeting; whether the members have been granted with weighted voting rights and/or negative veto rights; and the reasons, if any, for any of the abovementioned principles not having been applied, will be disclosed.

# v. Number, Structure and Independency of Committees Established by the Board of Directors

In this section, whether the board of directors has established a *corporate* governance committee or other committees besides the audit committee in order to fulfill its tasks and responsibilities; the qualifications of the Chairman and members of committees; the frequency of meeting and activities in the relevant period; and whether there are procedures to be followed during the execution of such activities shall be specified, and in the case that a corporate governance committee is not established, the grounds for that will be disclosed.

Furthermore, whether committee chairmen of all committees established within the board of directors have been selected among *independent board members*, whether both of the members in committees with two members and most of the members in committees with more than two members are *non-executive* board members, whether a board member serves on more than one committee, and, in case the abovementioned principles are not complied with, the grounds for this and any conflict of interest that emerges due to such failure be fully in compliance with these principles will be disclosed.

# vi. Remuneration of the Board of Directors

In this section, all kinds of rights, compensation and wages granted to the members of the board and the criteria that are used to determine them, whether a *remuneration* is implemented when determining the remuneration of the board of Directors *according to their performance* and the performance of the company. In this section, additionally, whether the company lends money to any member of the board and the managers; whether it provides credit to them and the result of any incident will be disclosed.

# 2.7 Corporate Governance Rating Systems

The development of corporate governance rating systems is driven by the need to compare corporate governance structures and practices between countries and companies. Indeed, there is a rising demand from investors for tools to help them judge the level of corporate governance as part of their investment strategy.

Remarkably, the available rating systems use different methodologies and weighting in measuring the level of corporate governance and they take varying approaches to reach their final conclusions. However, a company's board structure and processes is one of the three minimum categories found in all corporate governance rating systems. Besides these overall rating systems, specific board ratings have also emerged. Since 1996, Business Week magazine publishes its ranking of the best and worst boards in Corporate America (Bryne and Melcher, 1996).

The comparison of the rating systems reveals a large variety of the detailed set of criteria used to assess boards of directors. This variety concerns both the number and the content of the indicators. The differences in focus can, to a large extent, be explained by the underlying principles. Most of the rating systems rely on the internationally recognized corporate governance principles and codes (e.g. OECD, ICGN, World Bank), completed with national recommendations (Van den Berghe and Levrau, 2003).

In particular, the principles and codes may differ from one country to another. The differences can also be explained by the varying quality of the legal environment. In some emerging countries, corporate governance rating systems intercept the weak legal environment by including criteria not fully covered by law. For example, corporate governance scoring system of CLSA Asia-Pacific Markets, Asian's leading independent brokerage and investment group, includes a whole set of measures a company must take to prevent and punish mismanagement.

# 2.7.1 Corporate Governance Ratings in Europe

According to Roulhac, C. (2008), even in the relatively "advanced" countries (the UK, the Netherlands and Switzerland) corporate governance remains at the top of the board agenda. The UK continues to be, not only the leader on corporate governance, but also the rule setter. As countries on the Continent strive to achieve similar levels of compliance, British boards continue to move forward as they introduce new practices and set norms.

Heidrick & Struggles report "Corporate Governance in Europe: Raising the Bar" covers Europe's top 300 companies for the past eight years provides a perspective on Europe's progress towards improved corporate governance. To produce a country average each company was rated individually to a maximum rating of 16.

The report highlights that improvement has been registered in each of the ten countries surveyed, indicating general and continuing progress in raising corporate governance standards. Table 3.4.1 demonstrates a rise in the European corporate governance average up to 13.19.

9.13 1999 European Company average 9,78 2001 European Company average 11,48 2003 European Company average 2005 European Company average 12,68 13,19 2007 European Company average Germany 11,47 Italy 11,59 Spain 12,20 Belgium 12,66 Portugal 13,15 Sweden 13,52 France 13,75 Switzerland 14,18

Table 3.4.1 Corporate Governance Ratings by Country

Source: Heidrick & Struggles, "Corporate Governance in Europe 2007 Report", Raising the bar, Heidrick & Struggles International, Inc., 2007, p.4

Netherlands

**United Kingdom** 

14,58

14,78

### 2.7.2 Corporate Governance Ratings in Turkey

In July 2007 the CMB issued a declaration on Rating Activities and Rating Agencies in the Capital Market. The declaration defines Corporate Governance rating as the "the independent, impartial and fair evaluation and rating of corporations' compliance with the CMB's Guide on Corporate Governance Principles".

The rating of the implementation of Corporate Governance principles is to be based on varying degrees from 1 to 10, and the criteria are stakeholders' interests; disclosure and transparency; shareholders' protection; and the board of directors. Only agencies authorized by the CMB are entitled to carry out rating activities in Turkey. The rating agencies are required to report in their ratings any non-compliance with the CMB principles.

The long-awaited Corporate Governance Index of the Istanbul Stock Exchange (ISE) was published by the ISE on 31 August 2007. According to the rules, only those companies whose ratings are above 5 (i.e. at least six) are to be included in the Index. As of April 01 2009, 14 companies are listed in this Index.

SAHA Corporate Governance and Credit Valuation Services Inc., is the first licenced valuation firm by CMB. The valuation reports prepared by them are gathered and the rating method for the board of directors section is analyzed. When the scoring technique was analyzed it was observed that the scoring methodology was parallel to the one used in the methodology section of this thesis. As in the reports of the rating agencies, the survey questions grades every company in the sample according to their compliance level. Hereby, the results of this thesis could also be used as the ratings for the board of directors section of corporate governance principles.

The grading methodology used in this study is provided in Appendix B.

# Chapter 3

# **Family Businesses**

# 3.1 Family Business: Definition and Basic Concepts

Generally, family-owned firms are defined as firms owned, controlled and operated by members of one or several families. Historically, most of the large firms which are currently publicly held, were founded as family businesses. Many family businesses have non-family members as employees, but, particularly in smaller companies, the top positions are allocated to family members.

Family-owned firms comprise a very significant portion of all businesses all around the world. They range from being very small stores to multinational corporations. According to Ward (2007), 95 percent of all business was family-owned in the U.S. These firms employed 59 percent of the labor force and had a share of 50 percent in the GDP. Additionally, Italy had 99 percent of all business as family-owned firms. This ratio was 71 percent for Spain and according to the same definition of family-owned firms; it was more than 90 percent in Turkey in 2004.

The average life span of family companies in the world is 24 years. However, the life of family-owned firms in Turkey is thought to be much shorter than their counterparts abroad. According to Alacakıoğlu, (2004) the ability of Turkish firms to survive until the fourth generation is only two percent which is relatively low compared to the world average of 3.5 percent.

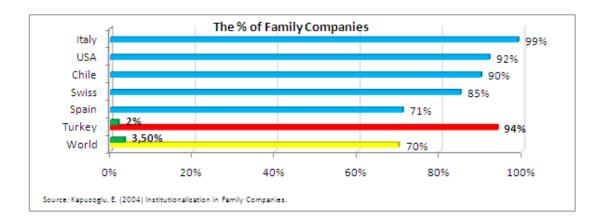


Figure 3.1 The Ratio of Family Companies to Total Companies in World and Turkey

Even though there is no consensus over the definition of a family business, usually scholars argue that it should include a combination of:

- i. Percentage of ownership.
- ii. Voting control.
- iii. Power over strategic decisions.
- iv. Involvement of multiple generations.
- v. Active involvement of family members in management.

Ward, (1997) assert that the most important elements of a family business are related to the strategic decision making and the intention to leave the business to family. In addition to the above definitions, there are other components that family-owned firms share;

- i. Usually, at least two different generations of the same family govern the firm.
- ii. The family ties become very important in determining the positions within the firm as well as the executive officials.
- iii. The family name and the firm name grow together; hence the success of the firm determines the social status of the family.
- iv. Generally, the firm is inherited by the next generation of the family.
- v. The organizational form of the firm is highly affected by the type of the family and the norms prevailing in the family.
- vi. Although, it is possible to have more than one family owning the firm, in general, one family is majorly influential and has the greatest power over decision making.

The characteristics of most family-owned firms indicate an overlap between the ownership and the governing structures. However, family businesses could be organized very differently depending on the size of the enterprise. (Hoshino, 2004).

#### 3.1.1 Family and Non-Family Businesses

The non-family businesses and family-owned businesses differ in terms of their governance structure. Both governance structures have several advantages and disadvantages. The difference between these two organizational structures mainly emanates from the nature of the ownership in family-owned firms.

From a positive viewpoint, when the ownership and control belong to the same individuals or groups, the firms are more likely to adopt long-term strategies. Generally, the owners of the company are more interested in patient and consistent investment opportunities that could sometimes only be realized in the long-term. Besides, companies controlled by a small group of hands-on owners can pursue controversial strategies and reject mediocre conventional wisdom (Crotty, 1999).

Nevertheless, firms controlled by a few can also be isolated and insulated from market realities. Seeking personal comfort and forsaking external accountability can lead to stale strategy, no succession planning, and organizational stagnation. Moreover, the personal conflicts among the family members are unrelated to market developments could hinder the capacities of the firm. (Crotty,1999)

# 3.1.1.1 Family Ownership

Previous studies by Kang (1998), James (1999) and Mishra *et al.* (2001) showed that the founding of family businesses provides a special kind of corporate governance that offers lower agency costs and better performance. Other studies however, indicated that a high level of insider ownership will result in an inefficient control of management, given that managers will pursue policies to their own advantage instead

of aiming at innovative entrepreneurial opportunities and shareholder value maximization.

A significant level of family ownership reduces any outside owner's ability to monitor and control the behavior of the firm's leadership, which decreases the value of the firm. The firm actually incurs high agency cost for the lack of transparency (Randøy and Goel, 2003).

# 3.1.1.2 Foreign Ownership

Foreign ownership in family companies is said to facilitate the stronger monitoring of managers (Randøy and Goel, 2003). In addition, the firm's cost of capital can be reduced by having large foreign institutional investors who actively monitor the actions of management (Randøy *et al.*, 2001). Prior empirical evidence suggests that the existence of foreign institutional investors leads to lower agency cost (Stulz, 1999). Firms with high foreign ownership may tend to institute certain control measures such as auditing and frequent reporting systems. These actions are likely to reduce agency cost and thus result in higher firm performance.

In the light of the above discussions, while grading the corporate governance compliance of the companies in the methodology part of this thesis high scores were assigned to the companies which have relatively fewer family members on the board.

# 3.1.2 Corporate Governance in Family Businesses

Corporate governance has traditionally been associated with large financial companies. This is mainly due to the separation between ownership and control of the firm. Basically, family businesses tend to have a less pronounced separation of ownership and management than larger firms. The question of accountability by family businesses to the public is non-existent since they do not depend on public funds. It is especially the case that "sole proprietorship" businesses do not necessarily need to comply with any disclosure.

In spite of these arguments, there is a global concern for the application of corporate governance to family businesses. It is often argued that similar guidelines that apply

to listed companies should also be applicable to family businesses. The ongoing tendency toward improving board functions within publicly listed firms will extend to family businesses by institutional pressures (Corbetta and Salvato, 2004). The extant empirical literature on the corporate governance of family businesses focuses on a number of factors including Board size, Board skill level, Board composition and control, CEO duality (CEO acting as the chairman of the board), percentage of shares families held, family ownership, and foreign ownership.

Research on corporate governance in Turkey provides significant evidence suggesting that the holding company structure affects the economic performance of Turkish family firms, including their profitability, return on assets, dividend payments and investment decisions. For example, Yurtoglu (2000) finds that concentrated ownership and pyramidal structures have been led to lower returns on assets, lower market to book ratios and lower dividends. Yurtoglu (2000a) demonstrates that the profit rates of Turkish family companies tend to diverge from the competitive market rates for longer time periods when these companies are part of the holding company structure and their leverage levels are low.

# 3.1.2.1 Independent Directors in Family Businesses

Several authors have recently argued strongly for the importance of an active board with independent board members in family firms (e.g. Gersick *et al.*, 1997; Neubauer and Lank, 1998; Huse, 2000). Scholars have, however, also pointed out that family members, relatives and/or close friends of the family dominate the board composition in family firms. Fiegener *et al.* (2000), for instance, found that family businesses where the CEO and related family have dominant ownership tended to have few independent board members.

Fama (1980) states that the board of directors of family companies is usually composed of family insiders. High insider representation on boards is associated with lower company performance. (Judge and Zeithaml, 1992). Insiders are not in a position to monitor the CEO, and the domination of the board of directors by top management can lead to collusion and the transfer of stockholder wealth.

Regarding the composition of the family firm board of directors, existing research has mainly been occupied with the relation between the number of outside directors on the board and the family firm performance. Danco and Jonovic (1981) argued for a board partly composed of outside directors in order to improve the strategic direction of the firm.

Ward and Handy (1988) found support when hypothesizing that a board comprised of mainly outside directors is valuable for the family firm. Similarly, Schwartz and Barnes (1991) found in their study of CEOs' attitudes towards independent directors, that it is perceived as strongly rewarding for the family firm to have independent directors on the board. Moreover, they conclude that the more independent people on the board, the better, and the more family members on the board the worse. Independent directors were found to be most helpful in providing unbiased views, ensuring management accountability and for establishing networks of contacts. Moreover, Schwartz and Barnes (1991) stress the importance of a careful selection of independent/outside directors, which is a point that Johannisson and Huse (2000) also emphasize. The background and competence of independent directors are essential if they are to contribute positively to the family firm (Johannisson and Huse, 2000).

Researchers have also shown that boards composed of outside directors give valuable contributions in different crucial situations for the family firm. For instance, the board's role in the planning of CEO succession (Danco and Jonovic, 1981; Ward, 1991), as a bridge between the family logic and the business logic (Ward, 1991; Harris, 1989), and as a resource when the family management does not have the time or competence to develop their firm (Mueller, 1988).

Some commentators have also pointed to the outside director's role as a mediator in family related conflicts (Mueller, 1988; Whisler, 1988), whereas others strongly advise against getting involved in family issues (Ward, 1991; Schwartz and Barnes, 1991). To conclude, there are many findings that suggest that once included, outside directors do contribute to and play a valuable role on the boards of family firms.

Nevertheless, research has also revealed negative aspects of boards composed of outside directors. Jonovic (1989, p. 132), for instance, argued: 'Managing a board of directors is a complex task, requiring attention, preparation, careful planning and time. These are, generally, the commodities in shortest supply in the family business.'

In a similar vein, Ford (1988) suggests that outside directors often lack knowledge about the firm's resources and competences as well as about its environment. He also argues that outside directors often experience that owner/managers are not available for counseling and/or are unwilling to let go of control. Empirically, Ford (1988) found in his sample of American privately held firms that outside directors were neither as influential nor as effective as their advocates claimed. Instead, he concludes that outside directors reduced the total influence of the board.

In their study of board practices in Italy, Corbetta and Tomaselli (1996) found that even if a board with outside directors may be considered useful, few firms actually have a board composition that includes outside directors. Ward (1991) discusses reasons for the lack of outside directors in many family firm boards. He argues that this is mainly because owners tend to be afraid of losing control, they do not believe that the outside directors understand the firm's competitive situation, they are afraid of opening up to new, external ideas and viewpoints and finally that they think that board work steals a lot of time from more urgent operational issues.

# Chapter 4

# Methodology

# 4.1 Research Design

In order to structure the study, the model was developed as show in Figure 4.1. The model seeks to examine the effects of the board configuration to the organizational performance. Board configuration of directors was measured by questions along five independent variables (IV), which were argued in the determination of the board structure and its effectiveness. Company performance is the dependent variable.

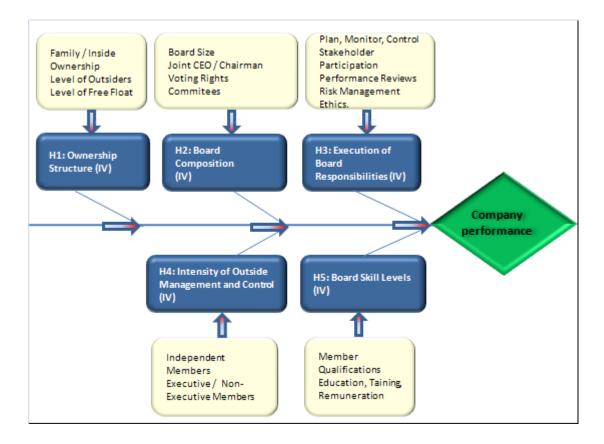


Figure 4.1 Research Model

# 4.2 Description of Variables

The study aims to reveal the relationship between the stock performance levels of Turkish family companies and the compliance of the companies with the Corporate Governance Principles, Section Four: Board of Directors. For this purpose, the following survey questions were developed based on the points raised by the extant literature and *Corporate Governance Principles* as defined by the Capital Markets Board (CMB) of Turkey.

# 4.3 Hypotheses

Given the proposals of the CMB, a number of hypotheses are outlined below. All hypotheses are consistent with the proposals put forward on the CMB.

#### i. Board Size

According to the CMB principles, the number of board members should be determined to facilitate the effective formation and working of committees by the board of directors. An optimum size for the board was not indicated in the CMB principles. According to TUSIAD best code, board size shall not be smaller than five. Based on the previously observed results of literature it is hypothesized that board size is positively correlated with firm performance in terms of stock return.

# ii. Frequency of Board Meetings

The CMB principles sates that the meetings of the board of directors should be planned and conducted in an effective and efficient manner. Since, the frequency of the board meetings were not classified in the CMB principles, it is hypothesized that the number of board meetings is unrelated with the firm's performance in terms of stock return.

#### iii. Board Qualifications

According to the CMB principles, members of the board should be elected from among qualified persons, who are proficient about the subject of activity and management of the company and who have acquired experience as a result of working in the private/public sector, and who preferably have obtained a university degree. The members must

- Be capable of analyzing and interpreting financial statements and reports,
- Have basic knowledge about the legal regulations applicable to the company for daily or long term business.

Within the general framework mentioned above the following proposition is developed: Presence of BOD members having CMB required qualifications is positively associated with company performance.

# iv. Presence of Independent Members

In the CMB principles it is stated that the independent board members are assumed to be objective in decision making and have the natural advantage to pursue the interests of the company, shareholders and stakeholders equally. Within this framework, the presence of a clear majority of independent board directors is one of the important elements in ensuring corporate governance practices.

However, when the practices of different countries are examined, it can be observed that this issue is evaluated differently in each case based on the conditions of each country. Taking into consideration Turkey's practices, special articles have been added to the CMB principles that emphasize the need for the independence of the board of directors.

Moreover, it was recommended that the board of directors be constituted from *at least two independent members*, and that at least *one third of the members* fulfill the criteria for independence. It is added that, as the conditions change in time, the ratio of the requirement for independent members will increase. Therefore it is proposed that poor organizational performance will depend, to some extent, on the proportion

of independent board members. Based on this review of earlier literature, and CMB principles, the following hypothesis is stated: Having a Board dominated by a majority of independent directors is positively associated with company performance.

#### v. Presence of Non-Executive Members

Similar to the above arguments, The CMB principles states that the majority of the board of directors should consist of non-executive members. Thus, the following proposition is developed: the greater the degree of non-executive directors, the higher the firm's performance will be in terms of stock return.

#### vi. Joint CEO/Board Chair Structure

Literature reviews concerning joint CEO/board chair structure reveals little clear empirical support for the view that duality of the posts has a negative effect on performance. On the contrary, the CMB principles recommended that the posts of CEO and Chairman should be separate. With regard to the proposal of CMB, the following hypothesis is put forward: Joint CEO/board chair structure is negatively correlated with the company performance in terms of stock return.

#### vii. Ownership structure

The analysis of the literature search on ownership structure reveals that a significant level of family ownership will result in an inefficient governance structure and reduces any outside owner's ability to monitor and control the behavior of the firm. Therefore it is hypothesized that there is a negative correlation between share percentage of family members and company performance.

Table 4.1 presents the hypotheses to be tested in this study and the statistical tests used.

Table 4.1 Hypotheses

| Tuble 1.1 Hypotheses  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Hypotheses  | Statistical Tests  |  |  |  |  |  |  |
| H1: Ownership Structure   |  |  |  |  |  |  |  |
| H1. <sub>1.</sub> There is a relationship between ownership   |  |  |  |  |  |  |  |
| structure and company performance.  | Chi- Square X <sup>2</sup> K indepent samples<br>Kruskal-Wallis Test |  |  |  |  |  |  |
| H1.2. There is a negative correlation between share percentage of family members and performance.             | Chi- Square X <sup>2</sup> K indepent samples<br>Kruskal-Wallis Test |  |  |  |  |  |  |
| H2: Board Composition   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |
| H2. <sub>1.</sub> Joint CEO/Board membership structure is negatively correlated with company performance.     | Mann Whitney <i>U</i> 2 independent samples                          |  |  |  |  |  |  |
| H2. <sub>2.</sub> High performing companies are positively related  |  |  |  |  |  |  |  |
| with the presence of an audit committee.  | Mann Whitney <i>U</i> 2 independent samples                          |  |  |  |  |  |  |
| H2.3. Company performance is positively related with board size.  | Chi- Square $\chi^2$ K indepent samples<br>Kruskal-Wallis Test       |  |  |  |  |  |  |
| 112. Free sections of December 112 112 12   |  |  |  |  |  |  |  |
| H3: Execution of Board Responsibilities   |  |  |  |  |  |  |  |
| H3.1. Lack of execution of BOD responsibilities is negatively correlated with performance.                    | Mann Whitney <i>U</i> 2 independent samples                          |  |  |  |  |  |  |
| H3. <sub>2.</sub> Presence of stakeholder participation policy is positively related with performance.        | Mann Whitney <i>U</i> 2 independent samples                          |  |  |  |  |  |  |
| H3.3. The number of board meetings is unrelated with performance in terms of stock return.                    | Chi- Square X <sup>2</sup> K indepent samples<br>Kruskal-Wallis Test |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |
| H4: Intensity of Outside Management and Control   |  |  |  |  |  |  |  |
| H4. <sub>1</sub> . Having a Board dominated by a majority of  |  |  |  |  |  |  |  |
| independent directors is positively related with company performance.   | Chi- Square X <sup>2</sup> K indepent samples<br>Kruskal-Wallis Test |  |  |  |  |  |  |
| H4. <sub>2.</sub> High performing companies are positively  |  |  |  |  |  |  |  |
| related with the presence of  | Chi Sauaro VIV indopent complet                                      |  |  |  |  |  |  |
| non-executive members.  | Chi- Square X <sup>2</sup> K indepent samples<br>Kruskal-Wallis Test |  |  |  |  |  |  |
| H5: Board Staff Skill Levels  |  |  |  |  |  |  |  |
| H5.1.: Presence of performance appraisals of BOD  |  |  |  |  |  |  |  |
| members is positively related with performance.   | Mann Whitney <i>U</i><br>2 independent samples                       |  |  |  |  |  |  |
| H5. <sub>2.</sub> Presence of BOD members with CMB required qualifications is positively related with company |  |  |  |  |  |  |  |
| performance.  | Mann Whitney <i>U</i><br>2 independent samples                       |  |  |  |  |  |  |

# 4.4 Sample and Population

The empirical analysis relies on the dataset of 90 Turkish family companies listed on the Istanbul Stock-Exchange (ISE). Quoted companies are classified into 20 economic activity related sectors, which fall into the following eleven categories: manufacturing industries, electricity, gas and water construction and public works, wholesale and retail trade, hotels and restaurants transportation, communication and storage, education, health, sports and other social services, financial institutions and technology category. In Appendix A, the detailed information of the sectors with associated companies is provided.

Purposive sampling a nonprobability sample that conforms to certain criteria is used for the sampling method. Among all the listed companies only the ones meet the terms of the family company assumptions were included in the sample.

The definition of a family firm is very close to the one used by Amit and Villalonga (2006). A firm is identified as a family firm when the founder or a member of the founder's family is a stock owner of the company.

The sample consists of companies that satisfied the following criteria:

- The firms must be fully quoted on the ISE. These companies are required to provide much more detailed performance and governance information than non-quoted companies.
- At least one member of the firm must have the stock ownership regardless of the ratio.
- Each firm must have published a Corporate Governance Compliance Report.
   The questions of the survey are derived from compliance reports, for this reason the firms that did not issue the compliance report such as Vakko, a well known family company in the garment industry, was automatically excluded.
- Banks were also excluded because they are subject to external regulatory bodies such as Basel II and this regulation may make the performancegovernance relationship different to that of non regulated sectors.

 The firms were included only if there was complete financial and governance data.

Table 4.1 Sample Selection Procedure

| Criterion  | Number of<br>Firms |
|--|--------------------|
| The total listed firms in ISE                              | 319                |
| Exclude state-owned firms                                  | (66)               |
| Exclude banks and special finance corporations             | (62)               |
| Exclude firms with missing stock market information        | (5)                |
| Exclude firms with missing CG Report                       | (89)               |
| Exclude firms that do not match family company assumptions | (7)                |
| Final Sample   | 90                 |

This gave a final sample of 90 quoted Turkish family companies. Corporate performance data were obtained from ISE. It holds financial data on all Turkish publicly quoted companies in a standardized format.

#### 4.5 Data Collection

In this thesis the secondary data analyzed was obtained from publicly available reports. The publicly available reports of the companies were obtained from the web sites of companies, CMB, and ISE.

Data for the stock performance and governance characteristics of Turkish quoted family companies were obtained from a number of sources.

# i. CMB Corporate Governance Compliance Reports.

The Capital Markets Board (CMB) of Turkey requires each listed company to issue a 'Corporate Governance Compliance Report' demonstrating the compliance of the firm with corporate governance principles. All the data on such matters as board structure, committee membership and individual directors were obtained from the Corporate Governance Compliance Reports. This is a yearly publication and must be included in the annual report of the company as a separate section.

- ii. Articles of Association reports of all the firms in the sample.
- iii. Annual Reports of all the firms that are selected for the sample.

In line with the objective of this study the information declared by the companies in the corporate governance compliance reports, articles of association reports and annual reports are treated as correct and accurate.

The total number of quoted companies is 319. Among all the companies, 90 companies fulfill the criteria of "family-owned companies" and are selected to be analyzed. The sample companies account for 80 percent of all the listed family companies. Monthly stock return data by sectors are provided by ISE.

The advantage of the methodology used in this thesis is that since the data is collected from the companies' own publications of the compliance reports, the collected date are valid and reliable, overcoming the bias and prejudices that lead to subjectivity. In this respect such problems as access to respondents, biased responses or the accuracy of the answers were automatically avoided.

As a complementary research method, documentation is used for this research. Documents regarding Turkish family businesses from mass media publications as well as a limited number of books were gathered to give a clearer perspective on what was being carried out where and why, this is in line with the literature review and the synthesis of the survey questions technique mentioned hitherto.

# 4.6 Survey Questions

To facilitate the analysis of the secondary data a set of survey questions were created on the basis of the proposals of 'Corporate Governance Principles' issued by CMB of Turkey. These principles were issued in July 2003 and revised in February 2005.

The compliance reports cover four parts.

- I. Shareholders.
- II. Public Disclosure and Transparency.
- III. Stakeholders.

The survey questions were not developed from scratch, for the purposes of this study all the survey questions were derived from section four; board of directors, of CMB Corporate Governance Principles, since this study particularly concentrates on the functions of the board of directors. To examine the determinants of firms' corporate governance structures all the headings of section four were used as reference in the survey questions. The section consists of the following headings:

#### IV. Board of Directors.

- a. Fundamental Functions of the Board of Directors.
- b. Principles of Activity and Duties and Responsibilities of the Board of Directors.
- c. Formation and Election of the Board of Directors.
- d. Number Structure and Independence of Committees established by the Board of Directors.

The survey questions are presented in Appendix C.

# Chapter 5

# **Empirical Results**

# 5.1 Analysis

CMB recommended that quoted companies should adopt a governance structure that complied with a specified set of criteria. This thesis uses a sample of 90 ISE quoted companies, to analyze their extent of compliance with the *board of directors*' part of the CMB. The results of the analysis will reveal the effect of compliance with the CMB principles. If the principles recommended by CMB were effective, it would be expected that compliance would be associated with better performance.

# **5.1.1** Computation of Score

To evaluate the extent of the companies to adopt the governance structures recommended by CMB, a value is assessed and named as *Score*. Assessment is done by grading every company according to their compliance levels. A data set between 24 and 65 is created, 24 being the lowest score and 65 being the highest score. The grading methodology used to calculate the *Score* is based on the analysis of the extant literature and the propositions stated in the corporate governance principles of CMB.

The independent variables in the survey questions are graded according to the literature surveys and the recommendations of the CMB principles. The grading methodology of how the *Score* figure is reached is given in detail in Appendix B.

# 5.1.2 Computation of Stock Return

Since the companies in the sample belong to 20 different industries, there appeared a necessity to standardize the stock return scores to make comparisons independent from the sector. A standardized value is calculated to evaluate the performance levels of the firms in the statistical tests as the dependent variable. This standardized value is calculated by yearly stock return data of the stocks and named as *S Return*.

To calculate the S Return, it was necessary to acquire mean values and the standard deviations of the companies. The mean values are present on the web site of ISE, together with the company yearly stock return scores. Explore function of SPSS is used to find standard deviations. The standard deviations, mean values and the value of return were entered in the CDF normal function in SPPS<sup>1</sup> and standardized return scores (S Returns) were attained. S Return is between 0 and 1, 0 being the lowest grade and 1 is the highest grade. If S Return of a company is closer to 1, this means that company performance is higher. See Appendix D for the stock return calculation explanations.

# **5.1.3** Description of the Statistical Tests Used

In this study non-parametric test technique was used because the variables analyzed were not normally distributed across the governance characteristics. The Mann-Whitney U test is the most popular of the two-independent-samples tests. It is equivalent to the Wilcoxon rank sum test and the Kruskal-Wallis test for two groups. Mann-Whitney U test was used to compare the differences in the mean figures. After the values are ranked, the test compares the median numbers of the ranked data.

<sup>&</sup>lt;sup>1</sup> CDF.NORMAL (quantity, mean, standard deviation). Numeric. Returns the cumulative probability that a value from the normal distribution, with specified mean and standard deviation, will be less than quantity.

Kruskal-Wallis is used for K-independent-samples tests. As in Mann-Whitney U test Kruskal-Wallis test compares the differences in the mean figures by comparing the median numbers of the ranked data.

Chi-square  $(X^2)$  test is selected to calculate the Pearson chi-square for tables with any number of rows and columns, ordered or unordered numeric categorical variables (ordinal or nominal levels of measurement).

Cross tabulation is used to test if there is any association between variables.

Multiple linear regression analysis is employed to investigate the explanatory power of the independent variables on the dependent variable.

# **5.1.4** Descriptive Statistics

Table 5.1 Descriptive Statistics of the Performance Indicator (S Return) and Company CG Score (Score)

| Descriptive Statistics |         |                   |       |  |  |  |  |  |  |
|------------------------|---------|-------------------|-------|--|--|--|--|--|--|
| S Return Score         |         |                   |       |  |  |  |  |  |  |
| N                      | Valid   | 90                | 90    |  |  |  |  |  |  |
|                        | Missing | 0                 | 0     |  |  |  |  |  |  |
| Minimum                |         | 0,01              | 24,00 |  |  |  |  |  |  |
| Maximum                |         | 1,00              | 65,00 |  |  |  |  |  |  |
| Mean                   |         | 0,51              | 45,76 |  |  |  |  |  |  |
| Median                 |         | 0,50              | 46,50 |  |  |  |  |  |  |
| Mode                   |         | 0,01 <sup>a</sup> | 51,00 |  |  |  |  |  |  |
| Std. Deviation         |         | 0,30              | 9,83  |  |  |  |  |  |  |
| Variance               |         | 0,09              | 96,59 |  |  |  |  |  |  |
| Percentiles            | 25      | 0,24              | 38,75 |  |  |  |  |  |  |
|                        | 50      | 0,50              | 46,50 |  |  |  |  |  |  |
|                        | 75      | 0,75              | 52,25 |  |  |  |  |  |  |

A Multiple modes exist. The smallest value is shown

Table 5.1 presents the descriptive statistics for S Return and Score. The number of the sample is 90. The average (median) profitability, S Return, is 0.50 showing the average standardized company performance. The average (median) corporate

governance principles compliance grade is 46.50. The lowest grade assigned is 24 and the highest grade is 65.

Table 5.2 Descriptive Statistics of Variables

|    |   |      |        |      | Std. |          |      |      |          |
|----|---|------|--------|------|------|----------|------|------|----------|
| No | Variables                                   | Mean | Median | Mode |      | Variance | Min. | Max. | Measure  |
| 1  | Firm founded by                             |      |        | 1    |      |          | 1    | 3    | Nominal  |
| 2  | Share % of family members                   | 5,74 | 6      | 4    | 2,41 | 5,79     | 2    | 10   | Interval |
| 3  | Level of free float                         | 4,23 | 4      | 3    | 1,99 | 3,98     | 1    | 10   | Interval |
| 4  | Controlling shareholder                     |      |        |      |      |          | 0    | 1    | Nominal  |
| 5  | Board size                                  | 7,00 | 7      | 5    | 2,28 | 5,21     | 3    | 14   | Interval |
| 6  | Proportion of family members                | 6,27 | 7      | 8    | 2,44 | 5,97     | 1    | 10   | Interval |
| 7  | Proportion executive members                | 6,67 | 7      | 9    | 2,65 | 7,03     | 1    | 10   | Interval |
| 8  | Existence of independent members            |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 9  | The proportion independent members          | 1,03 | 0      | 0    | 1,58 | 2,50     | 0    | 5    | Interval |
| 10 | Joint CEO-board chair structure             |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 11 | CEO-board member                            |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 12 | Existence of an audit commitee.             |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 13 | Independency of Chairman of the audit com.  |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 14 | Chairman of the audit com. is non-executive |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 15 | Existence of an CG committee.               |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 16 | Independency of Chairman of the CG com.     |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 17 | Chairman of the CG com. is non-executive    |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 18 | Stakeholders Participation                  |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 19 | Performance appraisals of BOD               |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 20 | Existence of perfor. based government       |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 21 | Perfor. based remuneration executives       |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 22 | Disclosure of the dissenting opinions       |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 23 | Existence of training programs              |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 24 | Reviews of strategic goals                  |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 25 | Restriction board duties out of the company |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 26 | Board election rules                        |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 27 | Qualifications of board members             |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 28 | Existence of outside consultants            |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 29 | Existence of equal voting rights.           |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 30 | Existence of negative veto rights.          |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 31 | Existence of internal control mechanism     |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 32 | Long term goal reviews                      | 2,96 | 3      | 3    | 0,89 | 0,78     | 0    | 4    | Interval |
| 33 | Frequency of board meetings                 | 3,23 | 3      | 5    | 1,47 | 2,16     | 0    | 5    | Interval |
| 34 | Age range of family members in board        | 1,83 | 2      | 1    | 0,90 | 0,81     | 1    | 4    | Interval |
| 35 | Compensation                                |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 36 | Performance based Remuneration              |      |        | 0    |      |          | 0    | 1    | Nominal  |
| 37 | Existence of ethical rules                  |      |        | 1    |      |          | 0    | 1    | Nominal  |
| 38 | Updated website                             |      |        | 1    |      |          | 0    | 1    | Nominal  |

The desciptive statistics of the variables. Mean, median, mode, standard deviations, minimum, maximum points and the measurement information is illustrates in Table 5.2.

Table 5.3 illustrates the comparisons of stock return data and score. When the stock return and score data is compared it is observed that for some companies stock return data and score datas are highly correlated. Some examples are: Sarkuysan, Ray Sigorta, Koç Holding, Bim Mağazalar, Adel Kalemcilik, Intema, Anadolu Efes, Acıbağdem Sağlık.

Several discrepancies are examined in some of the companies as well. For example the sample number 90, Tekfen Holding has a high grade of Score 57, showing that the company has a high compliance level with the CMB corporate governance principles, but at the same time the stock return is the lowest among all companies.

The correlation results of score and stock return is presented in Table 5.4. The strength of the linear relationship between stock return and score is .333 indicating a moderate level of correlation. The above mentioned discrepanies in some of the companies are the causes of moderate level of correlation between score and stock return.

Table 5.3 Comparison according to S Return and Score

| COMPANY              | S Return           | CG SCORE      |
|----------------------|--------------------|---------------|
| ACIBADEM SAĞLIK      | 1,00               | <b>all</b> 51 |
| AFM FİLM             | 1,00               | <b>all</b> 51 |
| FORD OTOSAN          | 0,97               | <b>all</b> 51 |
| BOSSA                | <b>d</b> 0,95      | dl 43         |
| BİM MAĞAZALAR        | d) 0,94            | <b>all</b> 56 |
| PINAR SÜT            | <b>d</b> 0,94      | <b>4</b> 53   |
| İNTEMA               | <b>d</b> 0,93      | <b>all</b> 55 |
| ANADOLU EFES         | <b>a</b> 0,91      | <b>dl</b> 55  |
| PINAR ET VE UN       | d 0,91             | <u>dll</u> 51 |
| ANEL TELEKOM         | <b>a</b> 0,91      | <b>dl</b> 47  |
| ARÇELİK              | d 0,91             | dl 44         |
| RAY SIGORTA          | dl 0,90            | <u>all</u> 61 |
| ALARKO HOLDÍNG       | d) 0,90            | dl 45         |
| SARKUYSAN            | dl 0,89            | dl 59         |
| KOÇ HOLDİNG          | dl 0,89            | al 42         |
| BRİSA                | d) 0,88            | dl 57         |
| ADEL KALEMCİLİK      | dl 0,87            | dl 46         |
| AYGAZ                | d) 0,84            | all 51        |
| ALTINYILDIZ          | d) 0,83            | all 52        |
| DOĞAN HOLDİNG        | d) 0,80            | all 52        |
| AKSÍGORTA            | d) 0,79            | all 52        |
| NUH ÇİMENTO          | d) 0,79            | all 48        |
| ENKA İNŞAAT          | d) 0,76            | d) 44         |
| GENTAŞ               | d) 0,76            | 41            |
| AKAL TEKSTİL         | d) 0,75            | all 54        |
| PLASTÍKKART          | d) 0,75            | d) 46         |
| SABANCI HOLDİNG      | d 0,75             | al 45         |
| BORUSAN YAT, PAZ.    | d) 0,74            | all 48        |
| EGE ENDÜSTRÍ         | d) 0,74            | al 38         |
| KAV PAZARLAMA        | d 0,73             | d) 43         |
| KEREVİTAŞ GIDA       | d 0,70             | all 51        |
| DERÍMOD              | al 0,70            | 30            |
| NUROL GMYO           | al 0,65            | all 52        |
| MAZHAR ZORLU HOLDÍNG | al 0,65            | al 40         |
| MERKO GIDA           | d 0,65             | 40            |
| DİTAŞ DOĞAN          | d) 0,64            | all 57        |
| AKIN TEKSTİL         | d) 0,64            | al 42         |
| ECZACIBAŞI YAT. ORT. | al 0,63            | d) 42         |
| PINAR SU             | d 0,62             | all 48        |
| YAZICILAR HOLDING    | al 0,62            | 48 48 52      |
| DURAN DOĞAN BASIM    | al 0,61            | all 52        |
| İDAŞ                 |                    |               |
| İHLAS EV ALETLERİ    | a) 0,60<br>a) 0,55 |               |
| ALKİM KAĞIT          |                    |               |
|                      | 0,55               | d) 43         |
| DYO BOYA             | d) 0,54            | <u>all</u> 57 |

Table 5.3 Comparison according to S Return and Score (Cont'd)

|    | COMPANY             |      | S Return | CG SCORE            |
|----|---------------------|------|----------|---------------------|
| 46 | ANADOLU ISUZU       | al   | 0,49     | d) 46               |
|    | PARSAN              | al   | 0,49     | al 37               |
|    | COCA COLA İÇECEK    | al   | 0,45     | <u>all</u> 50       |
|    | ZORLU ENERJÍ        | al   | 0,43     | dl 49               |
|    | DOĞAN YAYIN HOL.    | al   | 0,42     | <b>d</b> 58         |
|    | ECZACIBAŞI İLAÇ     | al   | 0,42     | 47                  |
|    | ALKİM KİMYA         | al   | 0,41     | al 39               |
|    | BUMERANG YAT.ORT.   | al   | 0,41     | al 36               |
|    | YÜNSA               | al   |          |                     |
|    | BEKO-GRUNDİG        |      | 0,39     |                     |
|    | BOYNER MAĞAZACILIK  | al   | 0,38     | 41                  |
|    | ÜLKER BİSKÜVİ       | al   | 0,37     | <b>d</b> 60         |
|    |                     | al   | 0,37     | 46                  |
|    | YATAŞ               | al   | 0,37     | 27                  |
|    | GSD HOLDING         | al   | 0,36     | <b>d</b> 46         |
| 60 |                     | al   | 0,36     | al 37               |
|    | LINK BILGISAYAR     | al   | 0,35     | 30                  |
|    | MARMARİS ALTINYUNUS | al   | 0,33     | 29                  |
|    | GOLDAS KUYUMCULUK   | al   | 0,32     | <u>49</u>           |
|    | BAK AMBALAJ         | al   | 0,31     | <u>all</u> 48       |
|    | DENTAŞ AMBALAJ      | al   | 0,31     | <u>al</u> 41        |
|    | AYEN ENERJÍ         | all  | 0,29     | 29                  |
|    | İHLAS HOLDİNG       | al   | 0,27     | <del>all</del> 64   |
|    | AKSU İPLİK          | al   | 0,27     | al 42               |
|    | VIKING KAĞIT        | dl   | 0,24     | <u>all</u> 55       |
|    | KELEBEK MOBİLYA     | all  | 0,24     | <u>all</u> 48       |
| 71 | KRİSTAL KOLA        | all  | 0,23     | <mark>all</mark> 55 |
| 72 | VESTEL              | all  | 0,22     | <b>all</b> 60       |
| 73 | İPEK MATBAACILIK    | all  | 0,18     | al 31               |
| 74 | KÜTAHYA PORSELEN    | all  | 0,16     | all 26              |
|    | BISAŞ TEKSTİL       | all  | 0,13     | d  37               |
| 76 | EGEPLAST            | اله  | 0,12     | al 34               |
| 77 | BERDAN TEKSTİL      | اله  | 0,12     | all 28              |
| 78 | METEMTUR OTELCİLİK  | اله  | 0,11     | <b>a</b> 1 24       |
| 79 | KARSAN OTOMOTÍV     | اله  | 0,10     | <u>ഷി</u> 65        |
| 80 | DESA DERÍ           | اله  | 0,10     | all 35              |
| 81 | BOYASAN TEKSTİL     | اله  | 0,09     | all 32              |
| 82 | UZEL                | all  | 0,09     | 28                  |
| 83 | METEMTEKS           | all  | 0,08     | al 35               |
| 84 | ARMADA BİLGİSAYAR   | اله  | 0,08     | 33                  |
| 85 | DOĞAN BURDA         | اله  | 0,07     | all 54              |
|    | TACÍRLER YAT. ORT.  | اله  | 0,04     | al 36               |
|    | SİNPAŞ GMYO         | dil  | 0,03     | dl 44               |
|    | EGE SERAMİK         |      | 0,03     | <b>al</b> 34        |
|    | VESTEL BEYAZ EŞYA   | الله | 0,02     | <b>d</b> 61         |
|    | TEKFEN HOLDING      | d    | 0,01     | <b>all</b> 57       |
| 50 | . E.G ETTTOEDITO    | QIII | 0,01     | W 01                |

Table 5.4 Pearson Correlation (S Return- Score)

| Correlations |                                      |                   |          |   |  |  |  |  |
|--------------|--------------------------------------|-------------------|----------|---|--|--|--|--|
|              |                                      | Score             | S Return |   |  |  |  |  |
| Score        | Pearson Correlation                  | 1                 | 0.333**  |   |  |  |  |  |
|              | Sig. (2-tailed)                      |                   | .001     |   |  |  |  |  |
|              | N                                    | 90                | 90       |   |  |  |  |  |
| S Return     | Pearson Correlation                  | 0.333**           | 1        |   |  |  |  |  |
|              | Sig. (2-tailed)                      | .001              |          |   |  |  |  |  |
| N 90 90      |                                      |                   |          |   |  |  |  |  |
| **           | Correlation is significant at the 0. | .01 level (2-tail | ed).     | • |  |  |  |  |

Table 5.4 illustrates the correlation results of Score and stock return. Pearson correlation is used to measure the strength of the linear relationship between stock return and score. If Pearson's correlation coefficient value lies between  $\pm$  0.25 and  $\pm$  0.75, then it is said to be moderate degree of correlation.

The above table demonstrates a statistically significant and moderate correlation between Score and S Return (p< .05). This indicates the companies which have high compliance level with the CMB corporate governance principles have relatively higher stock return figures.

# 5.2 Hypotheses Testing

Table 5.6 presents the hypotheses table with the accepted and rejected hypotheses. All the sub hypotheses of Hypothesis 3 and Hypothesis 4 are accepted. One sub hypothesis in each of the Hypothesis 1, Hypothesis 2 and Hypothesis 5 are accepted.

Table 5.5 presents the statistically significant survey questions among all the thirty eight questions and the applied tests. Sixteen of the thirty eight questions, one question of H1, three questions of H2, nine questions of H3, two questions of H4, and one question of H5 have revealed statistically significant results.

The detailed tests of the independent variables are given in the subsequent part.

**Table 5.5 Summary – Hypothesis Testing** 

| Hypotheses   | Accept/Reject |
|--|---------------|
| H1: Ownership Structure  |               |
| ${\rm H1.}_{ m 1.}$ There is a relationship between ownership structure and company performance.                                     |               |
| H1. <sub>2</sub> . There is a negative correlation between share percentage of family members and performance.                       | p < .05**     |
| H2: Board Composition  |               |
| $\rm H2{1.}$ Joint CEO/Board membership structure is negatively correlated with company performance.                                 |               |
| H2. <sub>2.</sub> High performing companies are positively associated with the presence of an audit committee.                       |               |
| H2. <sub>3.</sub> Company performance is positively associated with board size.  | p < .05**     |
|  |               |
| H3: Execution of Board Responsibilities  |               |
| H3.1. Lack of execution of BOD responsibilities is negatively correlated with performance.   | p < .05**     |
| H3. <sub>2</sub> . Presence of stakeholder participation policy is positively associated with performance.                           | p < .05**     |
| H3.3. The number of board meetings is unrelated with performance in terms of stock return.   | p < .05**     |
|  |               |
| H4: Intensity of Outside Management and Control  |               |
| H4. <sub>1.</sub> Having a Board dominated by a majority of independent directors is positively associated with company performance. | p < .05**     |
| H4. <sub>2.</sub> High performing companies are positively associated with the presence of non-executive members.                    | p < .05**     |
| U.S. Dagged Chaff Chill Laurala  |               |
| H5: Board Staff Skill Levels   |               |
| H5.1.: Presence of performance appraisals of BOD members is positively associated with performance.                                  | p < .05**     |
| H5. <sub>2</sub> . Presence of BOD members with CMB required qualifications is positively associated with company performance.       |               |
| ** Accept - statistically significant at 5 percent level.  |               |
|  |               |

**Table 5.6 Hypothesis Testing Significant Independent Variables** 

| Н1  | -Ownership Structure   | Applied Test   | Sig.  |
|-----|--|----------------|-------|
| 2.  | The share percentage of family members.  | Kruskal Wallis | p<.05 |
|     |  |                |       |
| H2  | - Board Composition  | Applied Test   | Sig.  |
| 5.  | The total number of board members.   | Kruskal Wallis | p<.05 |
| 6.  | The proportion of the number of family members to the total number of BOD.   | Mann Whitney U | p<.05 |
| 30. | The members have been granted with negative veto rights.   | Mann Whitney U | p<.05 |
|     |  | -              |       |
| Н3  | - Execution of Board Responsibilities  | Applied Test   | Sig.  |
| 18. | A model has been established regarding participation of Stakeholders' in management.                               | Mann Whitney U | p<.05 |
| 19. | BOD have appraised their own performance.  | Mann Whitney U | p<.05 |
| 20. | BOD support performance based government.  | Mann Whitney U | p<.05 |
| 21. | Executive members of BOD are remunerated according to their performance.   | Mann Whitney U | p<.05 |
| 24. | BOD has reviewed the implementation process of strategic goals and rate of meeting the goals.                      | Mann Whitney U | p<.05 |
| 25. | Duties carried out by board members out of the company have been regulated by rules.                               | Mann Whitney U | p<.05 |
| 31. | Internal control and risk management mechanism has been established by BOD.  | Mann Whitney U | p<.05 |
| 32. | The frequency of reviews of the implementation of long term goals by BOD.  | Kruskal Wallis | p<.05 |
| 38. | Company's website provide information mentioned in CMB Corporate Governance Principles Section II, Article 1.11.5. | Mann Whitney U | p<.05 |
|     |  | ,              |       |
| Н4  | - Intensity of Outside Management and Control  | Applied Test   | Sig.  |
| 7.  | The proportion of the number of executive members to the total number of BOD.                                      | Mann Whitney U | p<.05 |
| 9.  | The proportion of the number of independent members to the total number of board of directors                      | Mann Whitney U | p<.05 |
|     |  |                |       |
| H5  | - Board Staff Skill Levels  Remuneration of ROD is determined according their performance                          | Applied Test   | Sig.  |
| 36. | Remuneration of BOD is determined according their performance and the performance of the company.                  | Mann Whitney U | p<.05 |

#### **5.2.1** Statistical Tests

Statistical tests were conducted to explore the relationships of the independent variables and both company performance indicated as, *stock return* and compliance of the companies with CMB corporate governance principles indicated as *score*. The descriptive statistics of the variables and the statistical tests used which are related to a specified hypothesis are grouped and presented together.

# Hypothesis 1 (H1) - Ownership Structure

Ownership structure was tested by survey questions 1 through 4.

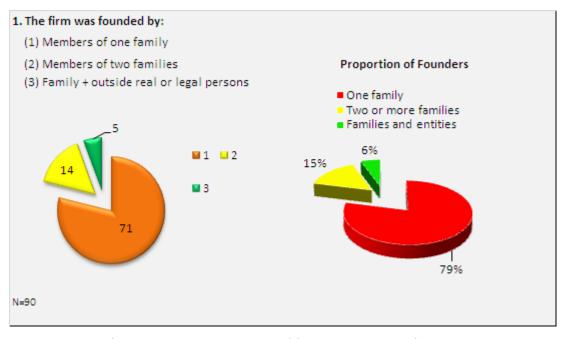


Figure 5.1 Company Ownership Structure-Founders (H1)

Analysis of the data in Figure 5.1 shows that a majority, 71 out of 90 companies (79 percent) were founded by one family.

Exhibit 5.1 *K* independent samples Kruskal-Wallis test (*H1*)

| Test Statistics <sup>a</sup> |                     | Test Statistics <sup>a</sup> |                     |
|------------------------------|---------------------|------------------------------|---------------------|
|                              | S Return            |                              | Score               |
| Chi-Square                   | 4,7                 | Chi-Square                   | 0,3                 |
| Р                            | .09                 | Р                            | .80                 |
| p>.05                        |                     | p>.05                        |                     |
| Α                            | Kruskal Wallis Test | Α                            | Kruskal Wallis Test |

Exhibit 5.1 reports the Kruskal Wallis test result of founder configuration. The results indicate that the founder structure of the company does not associate with either S Return or Score. (p<0.05) Therefore, the relevant hypothesis, H1<sub>1</sub>; 'There is a relationship between ownership structure and company performance' was not supported by the observed data.

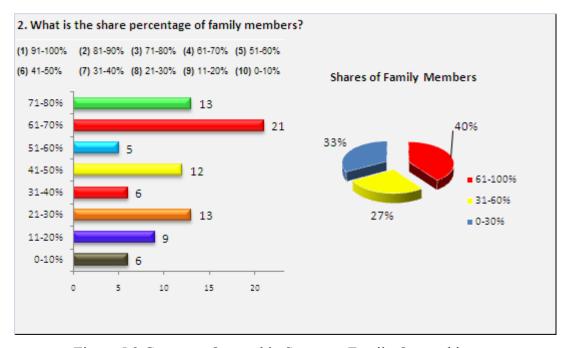


Figure 5.2 Company Ownership Structure-Family Ownership (H1)

Figure 5.2 presents that a high proportion (70 to 80 percent) of shares in 34 companies is owned by family members.

Exhibit 5.2 Mean Ranks S Return and Score (H1)

|       |        |    | S Return     | Score        | Test Statistics <sup>a</sup> |                     |
|-------|--------|----|--------------|--------------|------------------------------|---------------------|
| Ranks | %      | N  | Mean<br>Rank | Mean<br>Rank |                              | S Return            |
| 2     | 81-90% | 5  | 0,37         | 23           | Chi-Square                   | 15,2                |
| 3     | 71-80% | 13 | 0,36         | 25           | Р                            | .05                 |
| 4     | 61-70% | 21 | 0,49         | 42           | p<.05                        |                     |
| 5     | 51-60% | 5  | 0,59         | 44           | А                            | Kruskal Wallis Test |
| 6     | 41-50% | 12 | 0,61         | 63           | Test Statistics <sup>a</sup> |                     |
| 7     | 31-40% | 6  | 0,33         | 44           |                              | Score               |
| 8     | 21-30% | 13 | 0,43         | 52           | Chi-Square                   | 21,6                |
| 9     | 11-20% | 9  | 0,29         | 54           | Р                            | .005                |
| 10    | 0-10%  | 6  | 0,60         | 62           | p<.05                        |                     |
|       | Total  | 90 |              |              | Α                            | Kruskal Wallis Test |

Kruskal Wallis test reports that share percentage of family members show statistically significant relationship with both S Return and Score. As the ratio of the shares of family members (percentage of family member shares / total shares) falls, firms tend to perform better.

Mean ranks show that when the share percentage of the family members are above 50 percent Score and S Return decreases dramatically. This result provides support for the hypothesis  $H1._2$ . There is a negative correlation between share percentage of family members and company performance.

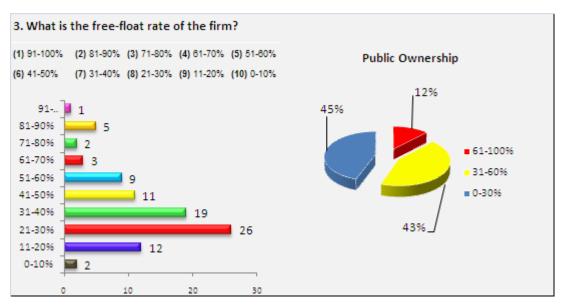


Figure 5.3 Company Ownership Structure - Free-Float Rates (H1)

Figure 5.3 indicates that only 12 percent of the companies have more than or equal to 70 percent of public ownership. 45 percent have public ownership of 0 to 30 percent.

Exhibit 5.3 Mean Ranks S Return and Score (H1)

|       |         |    | S Return  | Score     | Test Statistics | •                   |
|-------|---------|----|-----------|-----------|-----------------|---------------------|
| Ranks | %       | N  | Mean Rank | Mean Rank |                 | S Return            |
| 1     | 0-10%   | 2  | 0,59      | 27        | Chi-Square      | 7,9                 |
| 2     | 11-20%  | 12 | 0,56      | 44        | р               | .53                 |
| 3     | 21-30%  | 26 | 0,37      | 38        | p>.05           |                     |
| 4     | 31-40%  | 19 | 0,48      | 38        | а               | Kruskal Wallis Test |
| 5     | 41-50%  | 11 | 0,52      | 52        | Test Statistics | •                   |
| 6     | 51-60%  | 9  | 0,41      | 55        |                 | Score               |
| 7     | 61-70%  | 3  | 0,54      | 79        | Chi-Square      | 15,9                |
| 8     | 71-80%  | 2  | 0,48      | 58        | р               | .06                 |
| 9     | 81-90%  | 5  | 0,36      | 62        | p>.05           |                     |
| 10    | 91-100% | 1  | 0,66      | 83        | а               | Kruskal Wallis Test |
|       | Total   | 90 |           |           |                 |                     |

Exhibit 5.3 presents that there is no relationship between free-float rate of a company and company performance (S Return). The p value is very close to .05 indicates a statistically significant relationship between the Score and the public ownership. The higher the public ownership the higher the compliance with CMB principles.

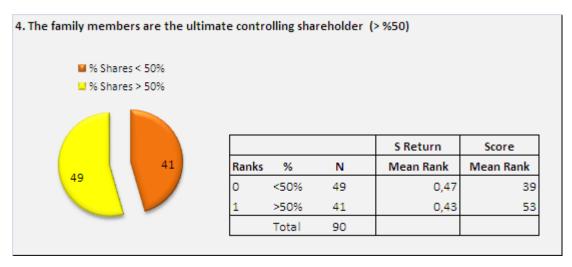


Figure 5.4 Company Ownership Structure - Ultimate Controlling Shareholder
Structure (*H1*)

Figure 5.4 presents that the family members of 49 companies hold more than 50 percent shares of the company. Mean rank of company performance (S Return) does not indicate any relationship with the company performance and the ultimate controlling shareholder structure, however the mean ranks of *Score* report a positive and significant association between compliance level of CMB principles and the ultimate controlling shareholder structure.

Exhibit 5.4 Two independent samples Mann-Whitney *U* Test (*H1*)

| Test Statistics |     | Test Statistics |     |
|-----------------|-----|-----------------|-----|
| S Return        |     | Score           |     |
| Mann-Whitney U  | 926 | Mann-Whitney U  | 692 |
| P               | .53 | Р               | .01 |
| p>.05           |     | p<.05           |     |

Exhibit 5.4 reports the Mann-Whitney U test results for ultimate controlling power and company performance, (S Return). There is no association for S Return, on the other hand for Score, there is a statistically significant difference were found. (p<0.05)

# Hypothesis 2 (H2) – Board Composition

Board composition was tested with the questions 5, 6, 10, 11, 12, 15, 29, 30.

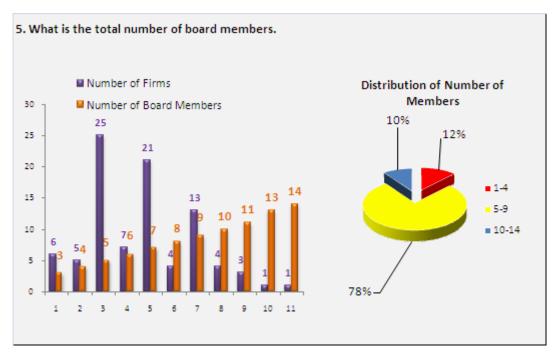


Figure 5.5 Board Composition - Number of Board Members (H2)

Figure 5.5 presents that 78 percent of the companies have five to nine board members where 12 percent have only one to four members. The largest board was composed of fourteen board members and the minimum board size was made up of three members.

Exhibit 5.5 Mean Ranks S Return and Score (H2)

| S Return |         |    |           | Score |         |    |           |
|----------|---------|----|-----------|-------|---------|----|-----------|
| Ranks    | members | N  | Mean Rank | Ranks | members | N  | Mean Rank |
| 1        | (1-4)   | 11 | 0,37      | 1     | (1-4)   | 11 | 23        |
| 2        | (5-9)   | 70 | 0,38      | 2     | (5-9)   | 70 | 25        |
| 3        | (10-14) | 9  | 0,49      | 3     | (10-14) | 9  | 42        |
| Total    |         | 90 |           | Total |         | 90 |           |

Exhibit 5.5.1 *K* independent samples Kruskal-Wallis test (*H*2)

| Test Statistics <sup>a</sup> |                     | Test Statistics <sup>a</sup> |                     |
|------------------------------|---------------------|------------------------------|---------------------|
|                              | S Return            |                              | Score               |
| Chi-Square                   | 7,3                 | Chi-Square                   | 10,5                |
| P                            | .03                 | Р                            | .01                 |
| p<.05                        | <u>.</u>            | p<.05                        |                     |
| Α                            | Kruskal Wallis Test | Α                            | Kruskal Wallis Test |

The mean ranks of the companies report that having a board size of less than four may not be advisable. The statistically significant and positive association between board size and performance suggests that relatively larger boards perform better compared to very small boards.

This result supports the theory of larger boards have a range of expertise to help make better decisions and provides support for the hypothesis, H2.4: *Company performance is positively related with board size*.

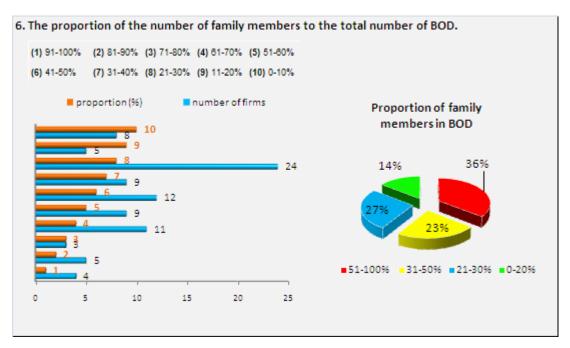


Figure 5.6 Board Composition - Family members in the BOD. (H2)

In 35 percent of the companies 50 percent or more of the board members are comprised of family members.

Exhibit 5.6 *K* independent samples Kruskal-Wallis test (*H*2)

| Test Statistics <sup>a</sup> |                     |       |         |    | S Return  | Score     |
|------------------------------|---------------------|-------|---------|----|-----------|-----------|
|                              | S Return            | Ranks | %       | N  | Mean Rank | Mean Rank |
| Chi-Square                   | 4,24                | 1     | 91-100% | 4  | 0,30      | 14        |
| Р                            | .04                 | 2     | 81-90%  | 5  | 0,27      | 36        |
| p<.05                        |                     | 3     | 71-80%  | 3  | 0,16      | 12        |
| А                            | Kruskal Wallis Test | 4     | 61-70%  | 11 | 0,46      | 23        |
| Test Statistics <sup>a</sup> |                     | 5     | 51-60%  | 9  | 0,48      | 36        |
|                              | Score               | 6     | 41-50%  | 12 | 0,43      | 46        |
| Chi-Square                   | 34,2                | 7     | 31-40%  | 9  | 0,55      | 47        |
| Р                            | .00                 | 8     | 21-30%  | 24 | 0,46      | 59        |
| p<.05                        |                     | 9     | 11-20%  | 5  | 0,57      | 63        |
| А                            | Kruskal Wallis Test | 10    | 0-10%   | 8  | 0,59      | 66        |
|                              |                     |       | Total   | 90 |           |           |

Exhibit 5.6 reports a statistically significant relationship between the proportion of family members in the board and with both performance levels and scores of the firms. As the ratio of family members in the board (number of family members /total board members) falls firms tend to perform better.

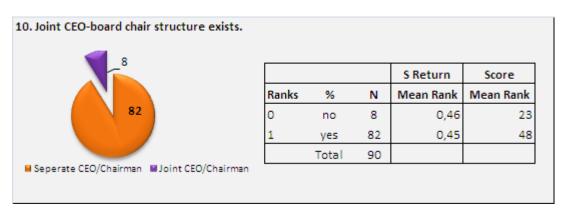


Figure 5.7 Board Composition CEO Duality (H2)

Figure 5.7 presents that the incidence of duality is low with only nine percent, only 8 companies out of 90 have joint CEO/board chair structure.

Exhibit 5.7 Two independent samples Mann-Whitney U Test (H2)

| Test Statistics |          | Test Statistics |       |
|-----------------|----------|-----------------|-------|
| !               | S Return |                 | Score |
| Mann-Whitney    |          | Mann-Whitney    |       |
| U               | 325      | U               | 151   |
| Р               | .96      | Р               | .01   |

Contrary to the recommended CMB principles of separating the posts, the results of Exhibit 5.7 reports no association with the presence of joint CEO/board chair structure and company performance. This is also contrary to the theoretical expectations because duality is associated with conflict of interest. This result provides no support for the hypothesis: *H2.1. Joint CEO/Board Membership Structure is negatively correlated with the company performance*.

The mean rank scores report a reverse relationship between the company compliance score and the joint CEO/board chair structure. This indicates that the presence of joint CEO/board chair structure increases the extent of compliance level with the governance structures recommended by the CMB.

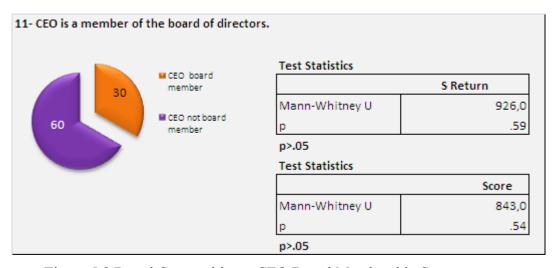


Figure 5.8 Board Composition – CEO Board Membership Structure (H2)

Figure 5.8 reports no association whether CEO is a member of the board and company performance. CEO is not a board member in 57 percent of the companies.



Figure 5.9 Board Composition – Audit Committee (H2)

In terms of the firms' committee configurations, a major proportion, 94.4 percent (85 out of 90) of the companies have audit committees.

Exhibit 5.9 Mann-Whitney U Test (H2)

| S Re           | eturn | Scor           | e   |
|----------------|-------|----------------|-----|
| Mann-Whitney U | 843   | Mann-Whitney U | 59  |
| Р              | .54   | P              | .00 |

Exhibit 5.9 shows no relationship between company performance and presence of an audit committee. This finding does not support the hypothesis, *H2.2. High* performing companies are positively related with the presence of an audit committee.

However there is a statistically significant difference between the company compliance score and the presence of an audit committee. This result indicates that the companies which have established audit committees have better compliance with the governance structures recommended by the CMB.

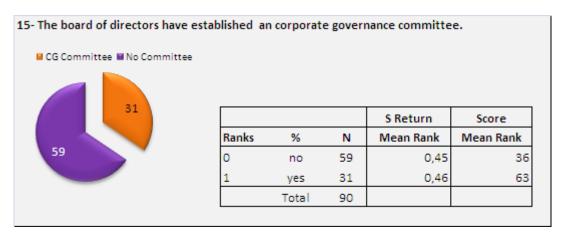


Figure 5.10 Board Composition CG Committee (H2)

Figure 5.10 reports that less than 40 percent (34.4 percent) of the firms have corporate governance committees.

Exhibit 5.10 Two independent samples Mann-Whitney U Test (H2)

| Test Statistics |          | Test Statistics |      |
|-----------------|----------|-----------------|------|
|                 | S Return | Se              | core |
| Mann-Whitney U  | 900      | Mann-Whitney U  | 366  |
| Р               | .90      | Р               | .00  |
| p>.05           |          | p<.05           |      |

Exhibit 5.10 shows no relationship between company performance and the presence of corporate governance committee. On the other hand there is a statistically significant difference between the company compliance score and the existence of a corporate governance committee. This result indicates that the companies which have established corporate governance committees better comply with the governance structures recommended by the CMB.

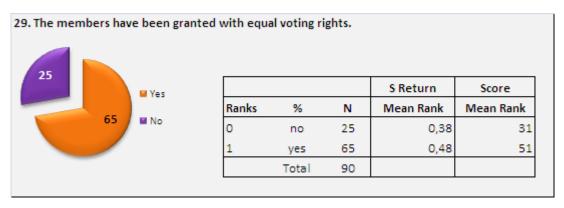


Figure 5.11 Board Composition Voting Rights (H2)

Figure 5.11 presents that 65 out of 90 companies, 72 percent, have equal voting rights. The above figure also indicates that in 25 companies the voting control of the board members are not equal where some of the board members have been granted with weighted voting rights.

Exhibit 5.11 Two independent samples Mann-Whitney U Test (H2)

| Test Statistics |        | Test Statistics |     |
|-----------------|--------|-----------------|-----|
|                 | Return | Sco             | re  |
| Mann-Whitney U  | 639    | Mann-Whitney U  | 452 |
| Р               | .18    | Р               | .01 |
| p>.05           |        | p<.05           |     |

Exhibit 5.11 indicates no relationship with presence of equal voting rights and company performance (S Return), however a statistically significant relationship with the level of compliance to corporate governance principles (Score) and the presence of equal voting rights exists.

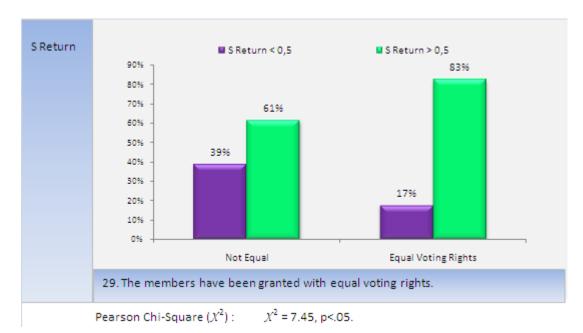


Figure 5.11.1 Board Composition Cross Tabulation (H2)

Figure 5.11.1 presents the results of the cross tabulation of S Return and presence of equal voting rights. In the presence of equal voting rights the rate of high performing companies are higher, the S Return's are greater than 0.5. Accordingly when there is no equal voting rights, the rate of low performing companies are higher.

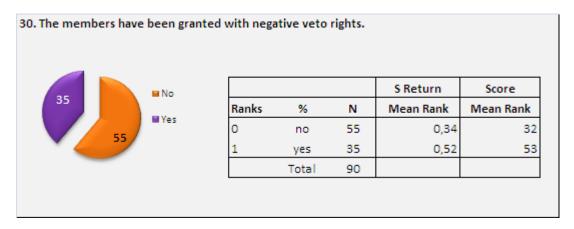


Figure 5.12 Board Composition – Veto Rights (H2)

Figure 5.12 presents that 55 out of 90, (51 percent) of the companies do not have negative voting rights.

Exhibit 5.12 Two independent samples Mann-Whitney U Test (H2)

| Test Statistics |       | Test Statistics |     |
|-----------------|-------|-----------------|-----|
| S Re            | eturn | Sco             | re  |
| Mann-Whitney U  | 589   | Mann-Whitney U  | 520 |
| P               | .02   | Р               | .00 |
| p<.05           | _     | p<.05           |     |

Exhibit 5.12 indicates a statistically significant relationship with negative voting rights and company performance, and the level of compliance to corporate governance. This result indicates that when companies do not have negative voting rights their performance levels are higher and they better comply with the governance structures recommended by the CMB.

#### Hypothesis 3 (H3) – Execution of Board Responsibilities

Execution of Board Responsibilities was tested by questions, 18, 19, 20, 21, 24, 25, 31, 32, 33.

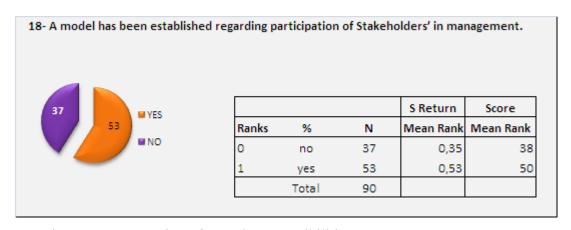


Figure 5.13 Execution of Board Responsibilities – Stakeholder Participation (H3)

Nearly 50 percent of the companies have established a model for the participation of stakeholders in management.

Exhibit 5.13 Two independent samples Mann-Whitney U Test (H3)

| Test Statistics |      | Test Statistics |     |
|-----------------|------|-----------------|-----|
| S Re            | turn | Scor            | e   |
| Mann-Whitney U  | 590  | Mann-Whitney U  | 720 |
| P               | .01  | Р               | .03 |
| p<.05           |      | p<.05           |     |

Exhibit 5.13 demonstrates a statistically significant relationship between the level of stakeholder participation with both company performance and compliance score. The proportion of stakeholder participation is a critical variable in explaining the firm's performance.

If the boards have established a model for stakeholder participation, the company performance and the compliance levels are higher. The findings support the hypothesis, *H3.2: Presence of stakeholder participation policy is positively related with company performance.* 

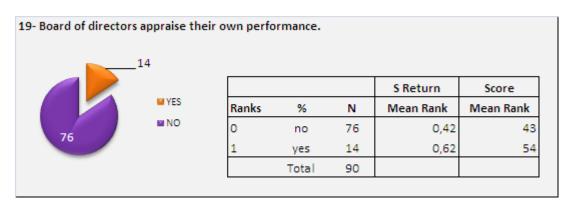


Figure 5.14 Execution of Board Responsibilities- Performance Appraisals (H3)

Figure 5.14 show that 14 out of 90 companies have a system to evaluate board members performance.

Exhibit 5.14 Two independent samples Mann-Whitney U Test (H3)

| Test Statistics |      | Test Statistics |     |
|-----------------|------|-----------------|-----|
| S Re            | turn | Scor            | re  |
| Mann-Whitney U  | 307  | Mann-Whitney U  | 410 |
| Р               | .01  | Р               | .17 |
| p<.05           |      | p>.05           |     |

Exhibit 5.14 demonstrates a significant relationship between performance appraisals and company performance. Both S Return and Score rankings indicate that the company performance and compliance level increases if board members appraise their own performances. This result support the hypothesis, *H5.1: Presence of* 

performance appraisals of BOD members is positively related with company performance.

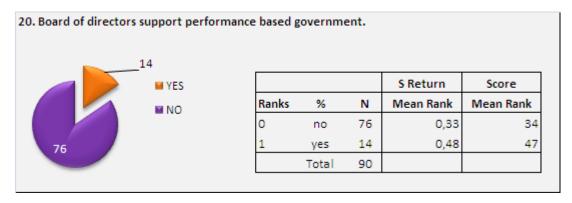


Figure 5.15 Execution of Board Responsibilities – Performance Based Government (*H3*)

Figure 5.15 indicates that 84 percent of the companies the board supports performance based government.

Exhibit 5.15 Two independent samples Mann-Whitney U Test (H3)

| Test Statistics |          | Test Statistics |     |
|-----------------|----------|-----------------|-----|
|                 | S Return | Score           | e   |
| Mann-Whitney U  | 398      | Mann-Whitney U  | 417 |
| Р               | .041     | Р               | .06 |
| P<.05           |          | p>.05           |     |

Exhibit 5.15 presents a statistically significant relationship between performance based government and company performance (S Return). There is also a statistically significant difference between the company compliance score and whether there exists a performance based government.

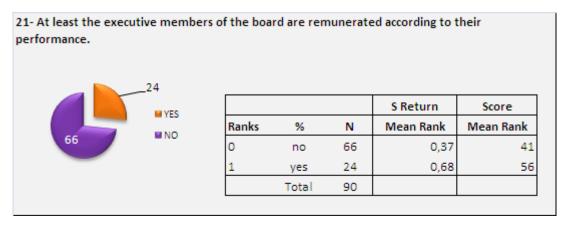


Figure 5.16 Execution of Board Responsibilities Executive Remuneration (H3)

Figure 5.16 shows that in only 24 companies executive members are remunerated according to their performance.

Exhibit 5.16 Two independent samples Mann-Whitney U Test (H3)

| Test Statistics |     | Test Statistics |          |
|-----------------|-----|-----------------|----------|
| S Ret           | urn | Score           | <u> </u> |
| Mann-Whitney U  | 244 | Mann-Whitney U  | 547      |
| P               | .00 | Р               | .26      |
| p<.05           |     | p>.05           |          |

Exhibit 5.16 indicates a statistically significant relationship between company performance (S Return) and the method of remuneration. This result indicates that the companies which have performance based remuneration for the executive members the level of compliance with the governance structures recommended by the CMB is higher.

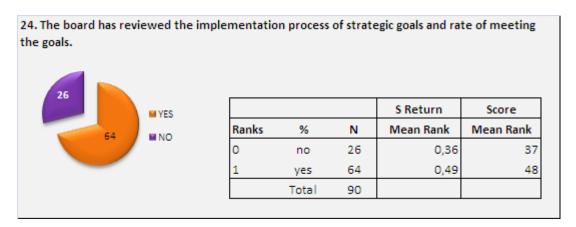


Figure 5.17 Execution of Board Responsibilities Review of Goals (H3)

Figure 5.17 presents that 54 out of 90 companies have a process of reviewing the strategic goals.

Exhibit 5.17 Two independent samples Mann-Whitney U Test (H3)

| Test Statistics |     | Test Statistics |     |  |
|-----------------|-----|-----------------|-----|--|
| S Return        |     | Sco             | re  |  |
| Mann-Whitney U  | 598 | Mann-Whitney U  | 618 |  |
| P               | .03 | P               | .05 |  |
| p<.05           | _   | p<.05           |     |  |

Exhibit 5.17 demonstrates a statistically significant relationship between company performance and the process of reviews.

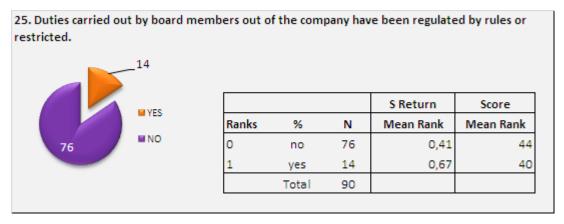


Figure 5.18 Execution of Board Responsibilities – Restricted Duties (*H3*)

Figure 5.18 indicates that the duties of the members are not regulated or restricted in 75 out of 90 companies.

Exhibit 5.18 Two independent samples Mann-Whitney U Test (H3)

| Test Statistics | Test Statistics |                |       |
|-----------------|-----------------|----------------|-------|
|                 | S Return        |                | Score |
| Mann-Whitney U  | 224             | Mann-Whitney U | 482   |
| Р               | .01             | Р              | .58   |
| p<.05           |                 | p>.05          |       |

Exhibit 5.18 reports that if the duties of the board members are regulated or restricted by rules, the performance of the company is higher. This result might indicate that the restrictions of the board members to work in other establishments may increase the motivation and concentration of the board members.

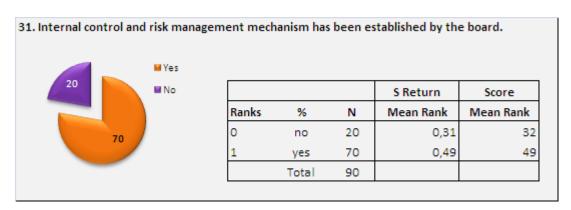


Figure 5.19 Execution of Board Responsibilities - Internal Control (H3)

Figure 5.19 presents that, 70 out of 90, (78 percent) of the companies have established internal control and risk management mechanism.

Exhibit 5.19 Two independent samples Mann-Whitney U Test (H3)

| Test Statistics |     | Test Statistics |     |
|-----------------|-----|-----------------|-----|
| S Return        |     | Scor            | ·e  |
| Mann-Whitney U  | 428 | Mann-Whitney U  | 442 |
| Р               | .00 | P               | .01 |
| p<.05           |     | p<.05           |     |

Exhibit 5.19 indicates a statistically significant relationship with established internal control and risk management mechanism and company performance, and the level of compliance to CMB principles. This result indicates that the presence of internal control and risk management increases the compliance level of the companies with the governance structures recommended by the CMB.

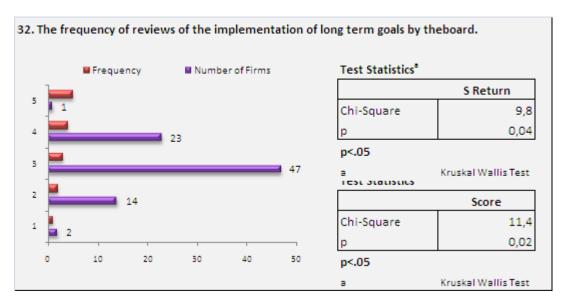


Figure 5.20 Execution of Board Responsibilities - Frequency of Reviews (H3)

Figure 5.20 indicates a statistically significant relationship with the frequency of reviews and company performance (S Return), and the level of compliance to corporate governance (score).

Exhibit 5.20 Mean Ranks S Return and Score (H3)

|       |                  |    | S Return  | Score     |
|-------|------------------|----|-----------|-----------|
| Ranks | %                | N  | Mean Rank | Mean Rank |
| 0     | Missing          | 3  | 0,17      | 9         |
| 1     | Once a year      | 1  | 0,22      | 73        |
| 2     | Every six months | 16 | 0,33      | 34        |
| 3     | Every quarter    | 47 | 0,50      | 47        |
| 4     | Every month      | 23 | 0,48      | 52        |
|       | Total            | 90 |           |           |

Exhibit 5.20 indicates that when the frequency of reviews increased the performance and the compliance score of the companies are increased. This result supports the

hypothesis, H3.<sub>1</sub>: Lack of execution of BOD responsibilities (plan, monitor, control) is negatively correlated with the company performance.

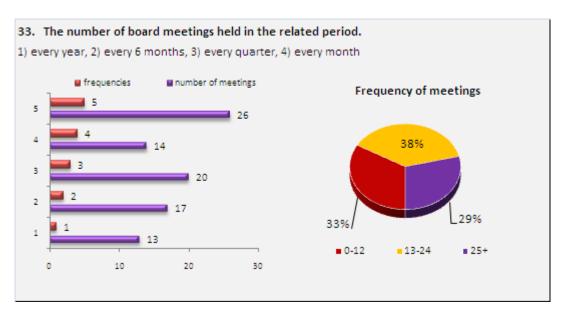


Figure 5.21 Execution of Board Responsibilities – Board Meetings (H3)

Figure 5.21 presents that 29 percent of the companies have 25+ meetings, 38 percent have 13 to 24 meetings, and 33 percent have up to 12 meetings per year.

Test Statistics® S Return Score S Return Mean Rank Mean Rank 5,5 Ranks Ν Chi-Square 0-6 1 39 13 0,52 36 7-12 2 17 0,39 31 p>.05 Test Statistics® 3 13-18 20 0,40 42 4 19-24 14 0,43 50 Score 5 25-30+ 26 0,53 50 Chi-Square 12,5 Total 90 02 p<.05 Kruskal Wallis Test

Exhibit 5.21 Mean Ranks S Return and Score (H3)

Exhibit 5.21 indicates a statistically significant relationship between the number of meetings held and the compliance score. However there is no relationship between company performance and board meeting, this result supports the hypothesis; the

number of board meetings is unrelated with the firm's performance in terms of stock return.



Figure 5.22 Execution of Board Responsibilities - Ethical Rules (H3)

Figure 5.22 presents that, in 75 percent, 58 out of 90 companies the board has established ethical rules.

Exhibit 5.22 Two independent samples Mann-Whitney U Test (H3)

| Test Statistics |     | Test Statistics |     |
|-----------------|-----|-----------------|-----|
| S Return        |     | Sco             | re  |
| Mann-Whitney U  | 688 | Mann-Whitney U  | 568 |
| Р               | .57 | P               | .92 |
| p>.05           |     | p>.05           |     |

Exhibit 5.22 presents no relationship with either stock return or score.

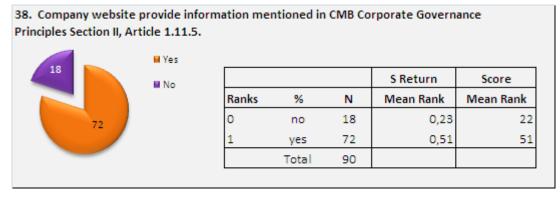


Figure 5.23 Execution of Board Responsibilities - Website (H3)

Figure 5.23 presents that, in 80 percent, 72 out of 90 companies updated their websites.

Exhibit 5.23 Two independent samples Mann-Whitney U Test (H3)

| S Return       |       | Score          |     |
|----------------|-------|----------------|-----|
| 3 10           | tuiii | 360            | 16  |
| Mann-Whitney U | 253   | Mann-Whitney U | 233 |
| Р              | .00   | P              | .00 |

Exhibit 5.23 presents that there is a statistically significant difference between the status of the websites and both S Return and Score.

# Hypothesis 4 (H4) – Intensity of Outside Management and Control

Execution of Board Responsibilities was tested by questions, 7, 8, 9, 13, 14, 16, 17, 22, 28.

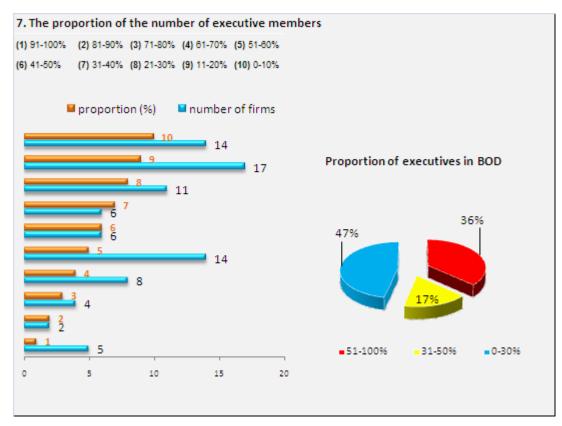


Figure 5.24 Intensity of Outside Management and Control - Executives in the BOD. (H4)

Figure 5.24 reports a widespread trust to the importance of having non-executive directors in the board. In 47 percent of companies the proportion of executives in BOD is low by 0 to 30 percent.

Exhibit 5.24 Mean Ranks S Return and Score (H4)

|       |         |    | S Return  | Score     | Test Statistics® |                     |
|-------|---------|----|-----------|-----------|------------------|---------------------|
| Ranks | %       | N  | Mean Rank | Mean Rank |                  | S Return            |
| 1     | 91-100% | 5  | 0,09      | 18        | Chi-Square       | 21,6                |
| 2     | 81-90%  | 2  | 0,08      | 12        | р                | .01                 |
| 3     | 71-80%  | 4  | 0,29      | 36        | p<.05            |                     |
| 4     | 61-70%  | 8  | 0,14      | 34        | а                | Kruskal Wallis Test |
| 5     | 51-60%  | 14 | 0,46      | 53        | Test Statistics® |                     |
| 6     | 41-50%  | 9  | 0,49      | 39        |                  | Score               |
| 7     | 31-40%  | 6  | 0,67      | 34        | Chi-Square       | 39,4                |
| 8     | 21-30%  | 11 | 0,48      | 45        | р                | .00                 |
| 9     | 11-20%  | 17 | 0,53      | 53        | p<.05            |                     |
| 10    | 0-10%   | 14 | 0,63      | 63        | а                | Kruskal Wallis Test |
|       | Total   | 90 |           |           |                  |                     |

Exhibit 5.24 reports a statistically significant difference and a negative correlation between the ratio of executive presence in the board with both company performance (S Return) and Score. The above findings support the hypothesis,  $H4._2$ . High performing companies are positively related with the presence of non-executive members.

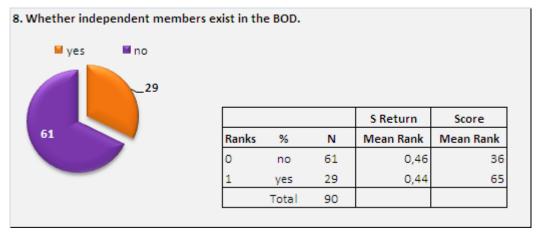


Figure 5.25 Intensity of Outside Management and Control - Independent Members

Contrary to the theoretical expectation, the results of Figure 5.25 indicate that the presence of independent members is not associated with company performance. Figure 5.25 presents that in 29 of the 90 companies there exists an independent member.

Exhibit 5.25 Two independent samples Mann-Whitney *U* Test (*H*4)

|                | S Return |                | Score |
|----------------|----------|----------------|-------|
| Mann-Whitney U | 854      | Mann-Whitney U | 331   |
| Р              | .79      | Р              | .00.  |

Exhibit 5.25 reports no association between the company performance (S Return) and the presence of independent members in the board. This could be explained by the fact that, family members who are also board members seem to understand the business better. Having family members in the board may provide a source of motivation to take performance-improving measures. The findings do not support the hypothesis, *H4.1. Having a Board dominated by a majority of independent directors is positively related with company performance*.

On the contrary there is a statistically significant relationship with the compliance score and the presence of independent members. The companies with the presence of independent members have a tendency to better comply with the principles.

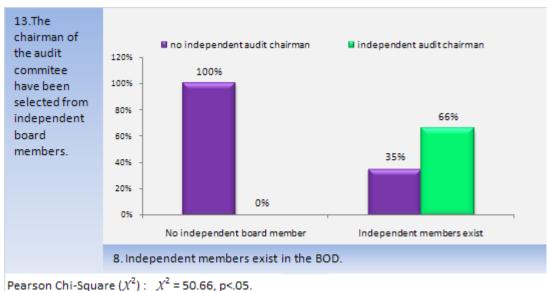


Figure 5.25.1 Intensity of Outside Management and Control - Independent Members and the Status of Audit Committee Chairman. (H4)

Figure 5.25.1 presents the results of the cross tabulation of existence of independent members and the status of the audit committee chairman. In case of no presence of independent members the chairman of the audit committee is an executive member. (100 percent) In contrast, the presence of independent members in the board generates a major proportion of independent audit committee chairman.

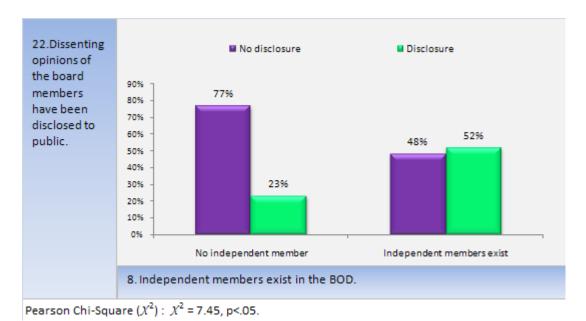


Figure 5.25.2 Intensity of Outside Management and Control - Independent Members and the Remuneration of Executives. (*H4*)

Figure 5.25.2 presents the results of the cross tabulation of existence of independent members and disclosure levels. In the presence of independent members almost half of the companies disclose the disagreements of the board members to the public. On the other hand in the absence of independent members the disclosure percentage is dramatically high.

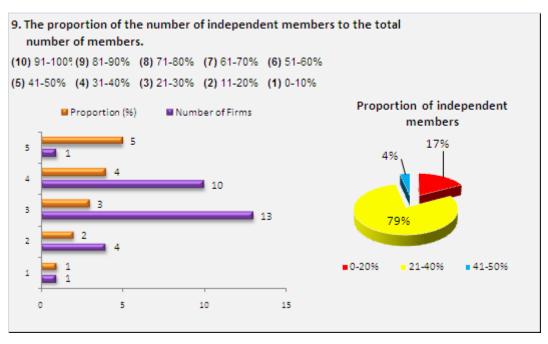


Figure 5.26 Intensity of Outside Management and Control – Proportion of Independent Members (*H4*)

Figure 5.26 show that the maximum percentage of independent members (number of independent members/total board members) in a company is 50 percent. 79 percent of the companies that have independent members, have a percentage of 21 to 40 percent of independent members in the board.

Exhibit 5.26 *K* independent samples Kruskal-Wallis test (*H4*)

| Test Statistics <sup>a</sup> |          | Test Statistics <sup>a</sup> |       |
|------------------------------|----------|------------------------------|-------|
|                              | S Return |                              | Score |
| Chi-Square                   | 6,9      | Chi-Square                   | 3,6   |
| P                            | .03      | Р                            | .47   |
| p>.05                        |          | p>.05                        |       |

Exhibit 5.26.1 Q.9 Recoded (H4)

|          | _     | Q.9 recoded                          |    | _         |
|----------|-------|--------------------------------------|----|-----------|
| S Return | Ranks | (the proportion independent members) | N  | Mean Rank |
|          | 1     | (0-30%)                              | 18 | 0,17      |
|          | 2     | (31-50%)                             | 11 | 0,11      |
|          |       | Total                                | 29 |           |

Unlike the results of Exhibit 5.25, Exhibit 5.26.1 shows a statistically significant relationship between the proportion of independent members and stock return.

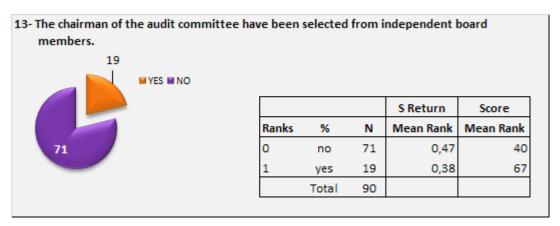


Figure 5.27 Intensity of Outside Management and Control – Chairman of the Audit Committee (*H4*)

Figure 5.27 present that a minority of the companies, 19 out of 90 (21.1 percent) have independent audit committee chairman.

Exhibit 5.27 Two independent samples Mann-Whitney U Test (H4)

| <b>Test Statistics</b> |     | Test Statistics |     |
|------------------------|-----|-----------------|-----|
| S Return               |     | Score           |     |
| Mann-Whitney U         | 541 | Mann-Whitney U  | 265 |
| P                      | .18 | P               | .00 |
| p>.05                  |     | p<.05           |     |

Exhibit 5.27 presents no relationship between company performance and status of the chairman of the audit committee. On the other hand there is a statistically significant difference between the company compliance score and the status of the chairman of the audit committee. This result indicates that if the audit committee

chairman was selected from independent board members, the company better comply with the governance structures recommended by the CMB.

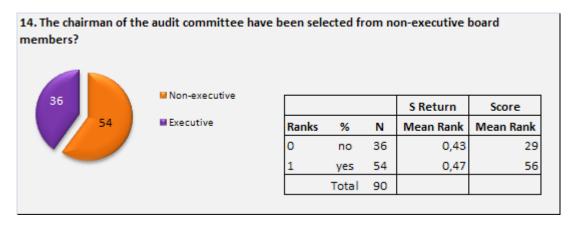


Figure 5.28 Intensity of Outside Management and Control - Executive Status of the Chairman (H4)

Figure 5.28 presents that 35 out of 90 companies have non-executive audit committee chairman.

Exhibit 5.28 Two independent samples Mann-Whitney U Test (H4)

| <b>Test Statistics</b> |     | Test Statistics |     |
|------------------------|-----|-----------------|-----|
| S Return               |     | Scor            | re  |
| Mann-Whitney U         | 883 | Mann-Whitney U  | 385 |
| P                      | .46 | Р               | .00 |
| p>.05                  |     | p<.05           |     |

Exhibit 5.28 shows no relationship between company performance and status of the chairman of the audit committee. On the other hand there is a statistically significant difference between the company compliance score and the status of the chairman of the audit committee, whether the chairman is executive or non executive. This result indicates that the companies which have non-executive audit committee chairman better comply with the governance structures recommended by the CMB.

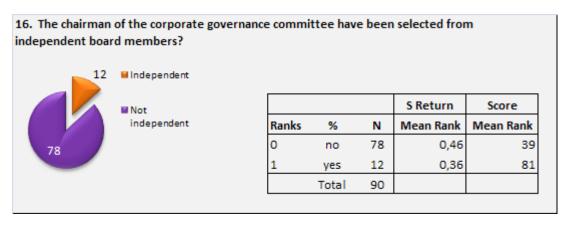


Figure 5.29 Intensity of Outside Management and Control – Independency of the Chairman of CG Committee (*H4*)

Figure 5.29 show that 13.3 percent (12 out of 90) companies have independent corporate governance committee chairman.

Exhibit 5.29 *K* independent samples Kruskal-Wallis test (*H4*)

| Test Statistics |        | Test Statistics |     |
|-----------------|--------|-----------------|-----|
| S               | Return | Scor            | е   |
| Mann-Whitney U  | 364    | Mann-Whitney U  | 36  |
| Р               | .21    | P               | .00 |
| p>.05           |        | p<.05           |     |

Exhibit 5.29 shows no relationship between company performance and status of the chairman of the corporate governance committee. In contrast there is a statistically significant difference between the company compliance score and the status of the chairman of the corporate governance committee. This result indicates that if the corporate governance committee chairman was selected from independent board members, the company better comply with the governance structures recommended by the CMB.

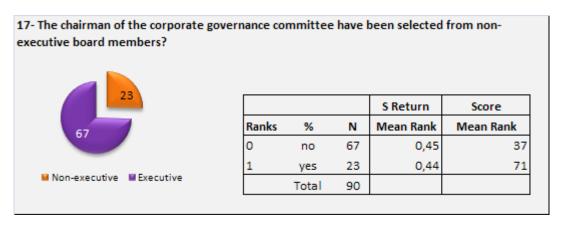


Figure 5.30 Intensity of Outside Management and Control – Executive Status of the CG Committee Chairman (H4)

Figure 5.30 show that 23 out of 90 companies have non-executive corporate governance committee chairman.

Exhibit 5.30 Two independent samples Mann-Whitney U Test (H4)

| Test Statistics |       | <b>Test Statistics</b> |     |
|-----------------|-------|------------------------|-----|
| S R             | eturn | Sco                    | re  |
| Mann-Whitney U  | 741   | Mann-Whitney U         | 193 |
| P               | 0.78  | P                      | .00 |
| p>.05           | _     | p<.05                  |     |

Exhibit 5.30 shows no relationship between company performance and status of the chairman of the corporate governance committee. On the other hand there is a statistically significant difference between the company compliance score and the status of the chairman of the corporate governance committee, whether the chairman is executive or non executive. This result indicates that the companies which have non-executive corporate governance committee chairman better comply with the governance structures recommended by the CMB.

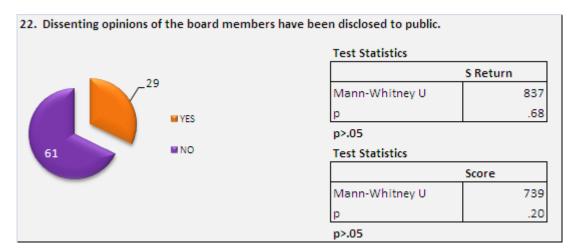


Figure 5.31 Intensity of Outside Management and Control – Disclosure of Dissenting Opinions (*H4*)

Figure 5.31 reports no relationship between the company performance and corporate governance compliance score with the disclosure of disagreements of the members are disclosed to the public.

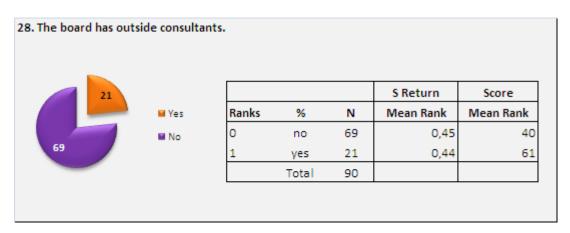


Figure 5.32 Intensity of Outside Management and Control - Consultants (H4)

Figure 5.32 presents that in only 21 out of 90 companies boards have outside consultants.

Exhibit 5.32 Two independent samples Mann-Whitney U Test (H4)

| Test Statistics |       | <b>Test Statistics</b> |     |
|-----------------|-------|------------------------|-----|
| S R             | eturn | Sco                    | re  |
| Mann-Whitney U  | 702   | Mann-Whitney U         | 396 |
| Р               | .83   | Р                      | .02 |
| p>.05           |       | p<.05                  |     |

Exhibit 5.32 indicates no relationship with presence of outside consultants and company performance, however a statistically significant relationship with the level of compliance to corporate governance (score) and the presence of outside consultants exists. This result indicates that the companies with the presence of outside consultants better comply with the governance structures recommended by the CMB.

### Hypothesis 5 (H5) - Board Staff Skill Levels

Board staff skill levels was tested by questions 23, 26, 27, 34, 35, 36.

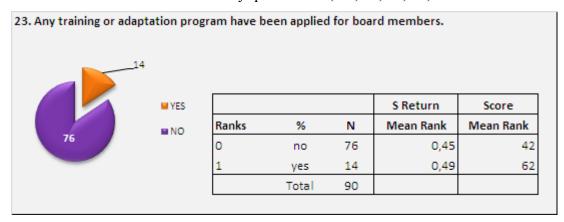


Figure 5.33 Board Staff Skill Levels – Training (H5)

Figure 5.33 presents that board of directors have training programs in only 14 of the companies out of 90.

Exhibit 5.33 Two independent samples Mann-Whitney U Test (H5)

| <b>Test Statistics</b> |       | Test Statistics |     |
|------------------------|-------|-----------------|-----|
| S R                    | eturn | Sco             | re  |
| Mann-Whitney U         | 484   | Mann-Whitney U  | 303 |
| P                      | .59   | P               | .01 |
| p>.05                  |       | p<.05           |     |

Exhibit 5.23 indicates no relationship between presence of training for board of directors and the company performance. However a statistically significant relationship with the level of compliance to corporate governance and the presence of training exists.

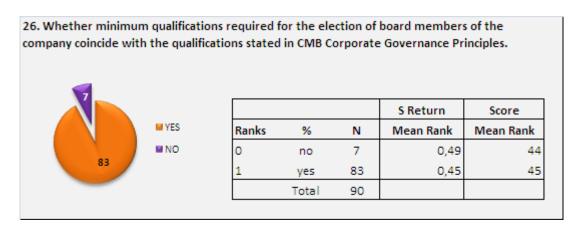


Figure 5.34 Board Staff Skill Levels - BOD Qualifications (H5)

Figure 5.34 presents that in 92 percent of the companies the qualifications of the board members coincide with the principles of CMB.

Exhibit 5.34 Two independent samples Mann-Whitney U Test (H5)

| Test Statistics |       | Test Statistics |     |  |
|-----------------|-------|-----------------|-----|--|
| S Re            | eturn | Score           |     |  |
| Mann-Whitney U  | 263   | Mann-Whitney U  | 280 |  |
| Р               | .69   | Р               | .88 |  |
| p>.05           |       | p>.05           |     |  |

Exhibit 5.34 indicates no relationship either with stock return and the score. When the mean rank figures are observed, the ranks are very close to each other. This finding does not support the hypothesis *H5*.<sub>2</sub>: *Presence of BOD members with CMB required qualifications is positively related with company performance.* 

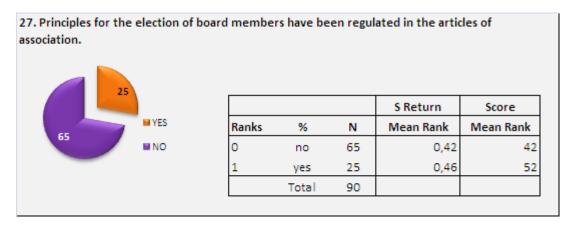


Figure 5.35 Board Staff Skill Levels – Election of BOD (H5)

Result in Figure 5.35 indicates that a majority of the companies did not pay attention to declare the board election processes in the articles of association. Above result presents that in only 25 of the companies the election principles were regulated.

Exhibit 5.35 Two independent samples Mann-Whitney U Test (H5)

| Test Statistics |      | Test Statistics |     |
|-----------------|------|-----------------|-----|
| S Re            | turn | Sco             | re  |
| Mann-Whitney U  | 727  | Mann-Whitney U  | 631 |
| Р               | .44  | Р               | .10 |
| p>.05           |      | p>.05           | _   |

Exhibit 5.35 indicates no relationship either with stock return and the score. When the mean ranks are observed, the ranks are very close to each other.

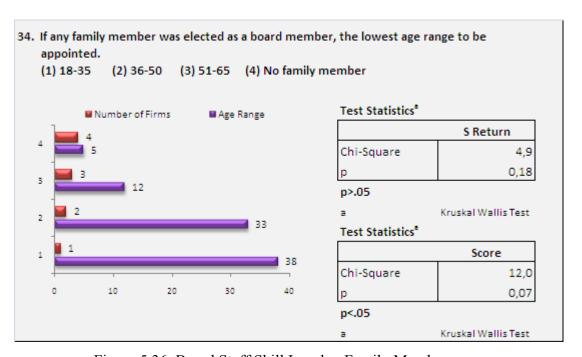


Figure 5.36 Board Staff Skill Levels - Family Members (H5)

Exhibit 5.36 indicates no statistically significant relationship between the age range of family members and performance.

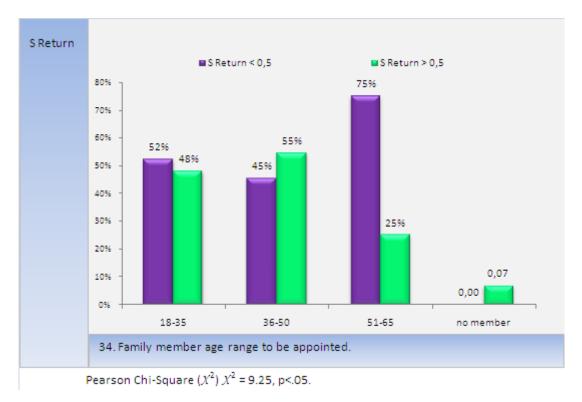


Figure 5.36.1 Board Staff Skill Levels – Cross Tabulation (H5)

Figure 5.36.1 presents the results of the cross tabulation of company performance, stock return, and the age range of family members. Company performance is relatively lower when the family members in the board have age ranges between 18 and 35. Company performance is relatively higher when age ranges of the family members are between 35 and 50 and again company performance is relatively lower when the family members in the board have age ranges between 51 and 55.

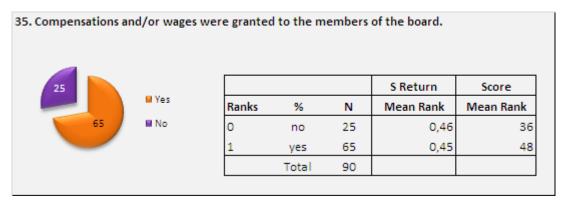


Figure 5.37 Board Staff Skill Levels - Compensations (H5)

Figure 5.37 presents that, in 72 percent of the companies, 55 out of 90, monthly compensations were granted to the member of the boards.

Exhibit 5.37 Two independent samples Mann-Whitney U Test (H5)

| S Re           | eturn | Sco            | re  |
|----------------|-------|----------------|-----|
| Mann-Whitney U | 798   | Mann-Whitney U | 590 |
| Р              | .89   | P              | .04 |

Exhibit 5.55 indicates no relationship with presence of monthly compensations and company performance, however a statistically significant relationship exist between the level of compliance to CMB principles and the presence of monthly compensations.

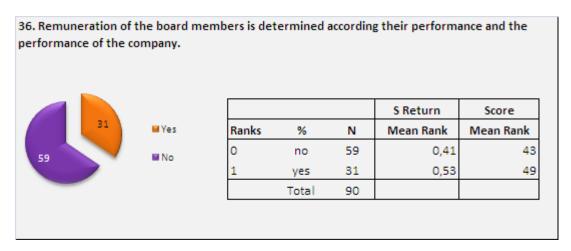


Figure 5.38 Board Staff Skill Levels - Remunerations (H5)

Figure 5.38 presents that, in 34 percent, a low proportion, of the board member compensations were granted according to performance evaluations.

Exhibit 5.38 Two independent samples Mann-Whitney U Test (H5)

| Test Statistics |      | Test Statistics |     |
|-----------------|------|-----------------|-----|
| S Re            | turn | Sco             | re  |
| Mann-Whitney U  | 672  | Mann-Whitney U  | 795 |
| P               | .03  | P               | .30 |
| p<.05           |      | p>.05           |     |

Exhibit 5.38 indicates no relationship with performance based remunerations and the level of compliance to CMB corporate governance principles, however a relationship between the presence of monthly compensations and company performance exists.

# 5.3 Regression Results

Regression analysis is employed to investigate the relationship between board governance measures and company performance. All the data were analyzed by using the statistical package for social science (SPSS) version 15.0.

To identify the strongest predictors that contribute most to explain the variability of the performance, a multiple stepwise regression is employed. The stepwise regression is computed by entering all 38 independent variables in to the linear regression computation in SPSS. At each step, the independent variable with the smallest probability of F is entered, if that probability is sufficiently small. Variables already in the regression equation are removed if their probability of F becomes sufficiently large. The method terminates when no more variables are eligible for inclusion or removal.

Exhibit 5.39 presents the regression results for the relationship between the board governance structure and stock return as company performance indicator. The regression produced an  $R^2$  of 0.634 indicating board's governance structure has a significant positive influence over company performance. This result shows that the explanatory power of the model is 0.634 and the model explains the **63.4 percent** of the variability in company performance.

The predictors in Exhibit 5.39 reports that five board governance variables were found to be significant.

Exhibit 5.39 Model Summary

| Mode  | l Summary         |          |          |             |                      |          |     |     |      |
|-------|-------------------|----------|----------|-------------|----------------------|----------|-----|-----|------|
|       |                   |          | Adjusted | Std. Error  | or Change Statistics |          |     |     |      |
| Model | R                 | R Square | R Square | of the Est. | R Square             | F Change | df1 | df2 | Sig. |
| 1     | .455°             | .203     | .173     | .271        | .203                 | 6,662    | 1   | 26  | .000 |
| 2     | .583 <sup>b</sup> | .340     | .287     | .252        | .136                 | 5,183    | 1   | 25  | .000 |
| 3     | .677°             | .459     | .391     | .232        | .118                 | 5,271    | 1   | 24  | .000 |
| 4     | .743 <sup>d</sup> | .554     | .475     | .216        | .094                 | 4,849    | 1   | 23  | .000 |
| 5     | .796 <sup>e</sup> | .634     | .551     | .200        | .080                 | 4,849    | 1   | 22  | .000 |

a: Predictors: (Constant), Q-21 (h3).

One-way ANOVA (analysis of variance) of variable means was run with the F-values and p-values listed as well. Apparently, the ANOVA statistics indicate that there is a significant difference in the mean scores of the variables (at the significance level of <.05). The F-statistics prove the validity of the estimated model.

Exhibit 5.40 ANOVA

| ANO  | VA <sup>f</sup> |         |    |        |       |       |
|------|-----------------|---------|----|--------|-------|-------|
|      |                 | Sum of  |    | Mean   |       |       |
| Mode | d l             | Squares | df | Square | F     | Sig.ª |
| 1    | Regression      | 0,491   | 1  | 0,491  | 6,662 | .015  |
|      | Residual        | 1,918   | 26 | 0,074  |       |       |
|      | Total           | 2,409   | 27 |        |       |       |
| 2    | Regression      | 0,821   | 2  | 0,410  | 6,459 | .005  |
|      | Residual        | 1,589   | 25 | 0,064  |       |       |
|      | Total           | 2,409   | 27 |        |       |       |
| 3    | Regression      | 1,107   | 3  | 0,369  | 6,799 | .000  |
|      | Residual        | 1,303   | 24 | 0,054  |       |       |
|      | Total           | 2,409   | 27 |        |       |       |
| 4    | Regression      | 1,334   | 4  | 0,333  | 7,129 | .000  |
|      | Residual        | 1,076   | 23 | 0,047  |       |       |
|      | Total           | 2,409   | 27 |        |       |       |
| 5    | Regression      | 1,528   | 5  | 0,306  | 7,627 | .000  |
|      | Residual        | 0,881   | 22 | 0,040  |       |       |
|      | Total           | 2,409   | 27 |        |       |       |

a: Predictors: (Constant), Q-21 (h3).

b: Predictors: (Constant), Q-21 (h3), Q-9 (h3).

c: Predictors: (Constant), Q-21 (h3), Q-9 (h3), Q-23 (h5).

d: Predictors: (Constant), Q-21 (h3) Q-9(h3), Q-23 (h5), Q-13 (h4)

e: Predictors: (Constant), Q-21 (h3) Q-9(h3), Q-23 (h5), Q-13 (h4), Q-38 (h3).

b: Predictors: (Constant), Q-21 (h3), Q-9 (h3).

c: Predictors: (Constant), Q-21 (h3), Q-9 (h3), Q-23 (h5).

d: Predictors: (Constant), Q-21 (h3) Q-9(h3), Q-23 (h5), Q-13 (h4)

e: Predictors: (Constant), Q-21 (h3) Q-9(h3), Q-23 (h5), Q-13 (h4), Q-38 (h3).

f: Dependent Variable: S Return

Exhibit 5.40 the presented F and p values in ANOVA table and verifies the significance of the regression model.

By examining the regression model it could be stated that the variability of company performance might be predicted by the following variables:

- 1- *Question* (9-H3) The proportion of the number of independent members to the total number of board of directors.
- 2- *Question (13-H4)* Whether the chairman of the audit committee have been selected from independent board members?
- 3- *Question (23-H5)* Whether any training or adaptation program have been applied for board members.
- 4- *Question (21-H3)* Whether executive members of the board are remunerated according to their performance.
- 5- *Question* (38-H3) Whether company's website provide information mentioned in CMB Corporate Governance Principles Section II, Article 1.11.5.

When the above independent variables are examined, three of the five independent variables, question (9-H3), question (21-H3), and question (38-H3), were derived from Hypothesis 3; Execution of Board Responsibilities, which reveals a significant weight in explaining company performance. One question (13-H4) from Hypothesis 4; Intensity of Outside Management and Control and one question (23-H5) from Hypothesis 5; Board Staff Skill Levels, were found to be significant in determining the variance in stock performances of the companies.

Exhibit 5.41 Coefficients

Coefficients (a)

|       |            | Unstandardized |            | Standardized |        |      |
|-------|------------|----------------|------------|--------------|--------|------|
| Model |            | Coefficients   |            | Coefficients | t      | Sig. |
|       |            | В              | Std. Error | Beta         |        | _    |
| 1     | (Constant) | 0,426          | 0,061      |              | 7,010  | .000 |
|       | Q-21 (h3). | 0,293          | 0,114      | 0,452        | 2,581  | .015 |
| 2     | (Constant) | 0,731          | 0,146      |              | 5,023  | .000 |
|       | Q-21 (h3), | 0,299          | 0,105      | 0,460        | 2,834  | .009 |
|       | Q-9 (h3).  | -0,226         | 0,099      | -0,370       | -2,277 | .031 |
| 3     | (Constant) | 0,835          | 0,142      |              | 5,883  | .000 |
|       | Q-21 (h3), | 0,359          | 0,101      | 0,553        | 3,555  | .001 |
|       | Q-9 (h3),  | -0,274         | 0,094      | -0,448       | -2,909 | .007 |
|       | Q-23 (h5). | -0,261         | 0,114      | -0,365       | -2,296 | .030 |
| 4     | (Constant) | 1,027          | 0,158      |              | 6,498  | .000 |
|       | Q-21 (h3), | 0,319          | 0,095      | 0,491        | 3,344  | .002 |
|       | Q-9(h3),   | -0,316         | 0,089      | -0,516       | -3,527 | .001 |
|       | Q-23 (h5), | -0,254         | 0,105      | -0,355       | -2,409 | .024 |
|       | Q-13 (h4). | -0,196         | 0,089      | -0,321       | -2,202 | .037 |
| 5     | (Constant) | 0,810          | 0,177      |              | 4,585  | .000 |
|       | Q-21 (h3), | 0,283          | 0,090      | 0,436        | 3,156  | .004 |
|       | Q-9 (h3),  | -0,324         | 0,083      | -0,530       | -3,911 | .001 |
|       | Q-23 (h5), | -0,284         | 0,099      | -0,398       | -2,884 | .008 |
|       | Q-13 (h4), | -0,201         | 0,083      | -0,328       | -2,433 | .023 |
|       | Q-38 (h3). | 0,279          | 0,127      | 0,294        | 2,202  | .038 |

a: Dependent Variable: S Return

Exhibit 5.41 reports the significance of the coefficients. The multiple regression model is composed of five independent variables accordingly five coefficients are tested by t statistics. The t statistics and p values shown in the last two columns predicts the significance of the variables to be included in the model. The p values (p<.05) demonstrates the significance all the variables.  $\beta$  coefficient will form the predicted model. All the independent variables have explanatory power and provides significant contribution to the model.

The coefficients in the standardized column indicate the importance of the independent variables disregarding the sign. In other words Q.21 with a standardized coefficient of 0.436 and Q.9 with a standardized coefficient of .530 have the strongest explanatory power.

Exhibit 5.42 Regression Analysis of H1

| H1 - Ownership StructureBoard Composition |      |          |          |            |                   |        |     |     |      |
|---|------|----------|----------|------------|-------------------|--------|-----|-----|------|
|   |      |          |          | Std. Error | Change Statistics |        |     |     |      |
|   |      |          | Adjusted | of the     | R Square          | F      |     |     |      |
| Model                                     | R    | R Square | R Square | Estimate   | Change            | Change | df1 | df2 | Sig. |
| 1   | .194 | .037     | .007     | 0,306      | 0,038             | 0,834  | 4   | 85  | .507 |
| Predictors: (Constant), Q-2 (h1)          |      |          |          |            |                   |        |     |     |      |

The stepwise regression is computed by entering all four independent variables of Hypothesis 1 in to the regression. Exhibit 5.42 demonstrates the regression results of the ownership structure and stock return. The regression produced an  $R^2$  of .037 indicating a minor and insignificant influence over company performance by 4 percent. This result shows that the model by itself, explains the 3.7 percent of the variability in company performance.

Exhibit 5.43 Regression Analysis of H2

| H2 - Board Composition                  |      |          |          |            |                   |        |     |     |      |
|---|------|----------|----------|------------|-------------------|--------|-----|-----|------|
|   |      |          |          | Std. Error | Change Statistics |        |     |     |      |
|   |      |          | Adjusted | of the     | R Square          | F      |     |     |      |
| Model                                   | R    | R Square | R Square | Estimate   | Change            | Change | df1 | df2 | Sig. |
| 1                                       | .324 | .105     | .095     | .289       | 0,105             | 10,351 | 1   | 88  | .001 |
| 2                                       | .388 | .150     | .131     | .283       | 0,046             | 4,671  | 1   | 87  | .003 |
| Predictors: (Constant), Q-30, Q-5. (h2) |      |          |          |            |                   |        |     |     |      |

The stepwise regression is computed by entering all eight independent variables of Hypothesis 2. Exhibit 5.43 demonstrates the regression results for the board composition and stock return. The regression produced an  $R^2$  of .150 indicating a significant influence over company performance. This result shows that the model by itself, explains the 15 percent of the variability in company performance.

Exhibit 5.44 Regression Analysis of H3

|  |       |          |          | Std. Error | Change Statistics |        |     |     |      |
|--|-------|----------|----------|------------|-------------------|--------|-----|-----|------|
|  |       |          | Adjusted | of the     | R Square          | F      |     |     |      |
| Model  | R     | R Square | R Square | Estimate   | Change            | Change | df1 | df2 | Sig. |
| 1  | 0,528 | .278     | .270     | 0,260      | 0,278             | 33,179 | 1   | 86  | .000 |
| 2  | 0,616 | .379     | .364     | 0,243      | 0,101             | 13,824 | 1   | 85  | .000 |
| 3  | 0,648 | .419     | .398     | 0,236      | 0,040             | 5,779  | 1   | 84  | .018 |
| 4  | 0,675 | .455     | .428     | 0,230      | 0,036             | 5,456  | 1   | 83  | .021 |
| Predictors: (Constant), Q-21., Q-38, Q-32, Q-25 (h3) |       |          |          |            |                   |        |     |     |      |

The stepwise regression is computed by entering eleven independent variables of Hypothesis 3. Exhibit 5.44 demonstrates the regression results for the execution of board responsibilities and stock return. The regression produced an  $R^2$  of .455 indicates execution of board responsibilities has a significant influence over company performance by 45.5 percent. This result shows that the model by itself, explains the 45.5 percent of the variability in company performance.

Exhibit 5.45 Regression Analysis of H4

| H4 - Intensity of Outside Management and Control |      |          |          |            |                   |        |     |     |      |
|--|------|----------|----------|------------|-------------------|--------|-----|-----|------|
|  |      |          |          | Std. Error | Change Statistics |        |     |     |      |
|  |      |          | Adjusted | of the     | R Square          | F      |     |     |      |
| Model  | R    | R Square | R Square | Estimate   | Change            | Change | df1 | df2 | Sig. |
| 1  | .395 | .156     | .125     | 0,282      | 0,157             | 5,012  | 1   | 27  | .033 |
| 2  | .567 | .322     | .269     | 0,258      | 0,165             | 6,346  | 1   | 26  | .018 |
| 3  | .706 | .498     | .438     | 0,226      | 0,177             | 8,821  | 1   | 25  | .006 |
| Predictors: (Constant), Q-9, Q-13, Q-22 (h4)     |      |          |          |            |                   |        |     |     |      |

The stepwise regression is computed by entering nine independent variables of Hypothesis 4. Exhibit 5.45 demonstrates the regression results for the intensity of outside management and stock return. The regression produced an  $R^2$  of .498 and adjusted  $R^2$  of .438. The results show intensity of outside management and control has a significant influence over company performance by 49.8 percent and the model by itself, explains almost 50 percent of the variability in company performance.

Exhibit 5.46 Regression Analysis of H5

| H5 - Board Staff Skill Levels      |      |          |          |            |                   |        |     |     |      |
|------------------------------------|------|----------|----------|------------|-------------------|--------|-----|-----|------|
|                                    |      |          |          | Std. Error | Change Statistics |        |     |     |      |
|                                    |      |          | Adjusted | of the     | R Square          | F      |     |     |      |
| Model                              | R    | R Square | R Square | Estimate   | Change            | Change | df1 | df2 | Sig. |
| 1                                  | .211 | .044     | .033     | .299       | 0,045             | 4,128  | 1   | 88  | .045 |
| Predictors: (Constant), S-36. (h5) |      |          |          |            |                   |        |     |     |      |

The stepwise regression is computed by entering six independent variables of Hypothesis 5. Exhibit 5.46 demonstrates the regression results for the board staff skill levels and stock return. The regression produced an  $R^2$  of .044. The results show that board's governance structure has a significant influence over company performance by 4.4 percent and the model by itself, explains 4.4 percent of the variability in company performance.

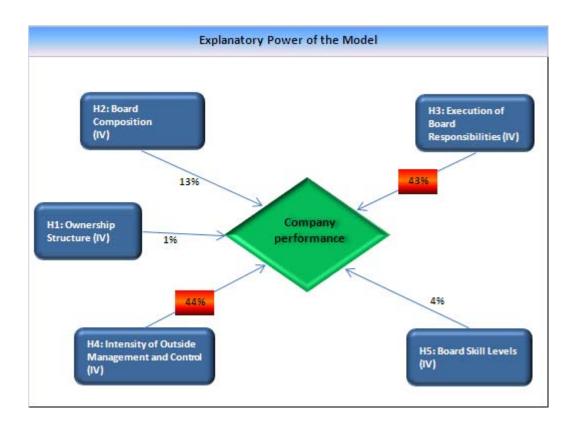


Figure 5.39 Explanatory Power of the Model

The adjusted R<sup>2</sup> values are illustrated for greater accuracy in Figure 5.39.

Figure 5.39 illustrates that Hypothesis 3; Execution of Board Responsibilities, alone by itself explains the 43 percent of the variability in company performance, Hypothesis 4; Intensity of Outside Management and Control, alone by itself, explains the variability in company performance by 44 percent. Hypothesis 1; Ownership Structure has almost no effect on the company performance. Hypothesis 5; Board Skill Levels and Hypothesis 2; Board Composition, has small but statistically significant effects on the variability of company performance.

#### Chapter 6

#### Conclusion

The importance of corporate governance has been discussed mostly within the context of large, publicly listed firms. However, less attention has been paid to the area with respect to family companies.

This thesis analyzed the extent of compliance with the governance principles recommended by the CMB regarding board structure, board size, board composition, management skill level, CEO duality, and family ownership. The relationship between these recommended principles and corporate performance was then analyzed in an attempt to assess whether or not the adoption of these governance principles was related with superior performance.

The independent variables regarding intensity of outside management and control such as the proportion of executive members and the proportion of the independent members in board have a significant and positive relationship with firm profitability. These variables, by itself, explain almost 50 percent of the variation in company performance.

One argument for the above finding might be that the existence of non-executive directors could lead to better management decisions and help family companies to attract better resources. Also, independent members may have good knowledge or useful information on financing facilities.

The independent variables related to the execution of board responsibilities such as; stakeholder participation, board reviews of strategic goals, restrictions for board

duties, internal control and risk management mechanism, frequency of reviews of long term goals, have a significant and positive relationship with firm performance. These variables related to the execution of board responsibilities, by itself, explain almost 50 percent of the variation in company performance. As a result business experience and the method of execution of the duties have a strong influence in determining performance as well as intensity of outside management and control.

The results of this thesis reveal that there had been widespread adoption of CMB's recommendations and that many firms had internal governance practices that are compliant to the principles of CMB. As shown by the results of this study the governance principles proposed by CMB have had the expected beneficial impact on firm performance.

This study has shed some light on the relevance of BOD's responsibilities for family companies in Turkey, however, further research is necessary in order to further develop some of the insights delivered by this study. Further investigation is also necessary to analyze the sufficiency of CMB governance principles and its effective applicability within the firm.

#### 6.1 Limitations of the Study

In this study the conceptual bounds are limited to the issue of the board of directors, whereas the concept of corporate governance includes other major issues, such as the rights of shareholders, public disclosure and transparency and stakeholders.

Company performance is measured by the avarege yearly return, also known as Return on Investment (ROI). The ROI variable is used as the performance indicator. This model may also be tested with different indicators of performance.

Some of the survey questions previously intended to be included in the survey, such as the *existence of cumulative voting rights*, (a voting system that gives minority shareholders more power, by allowing them to cast all of their board of director votes for a single candidate, as opposed to regular or statutory voting, in which shareholders must vote for a different candidate for each available seat, or distribute

their votes between a number of candidates) one of the indicators of accountable corporate governance, were omitted and excluded from the survey questions since this application was not in operation in any of the Turkish companies.

Even if it is obligatory for all the listed firms to issue the corporate governance compliance reports, some firms did not issue the report. In future fiscal periods, if these firms issue the corporate governance compliance reports, they could also be included in the future research studies.

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## **Appendices**

**Appendix A:** Sectors and Stock Return

**Appendix B:** Grading Methodology of Score

**Appendix C:** Survey Questions

**Appendix D:** Stock Return Explanations

**Appendix E:** Vita

# Appendix A Sectors and Stock Return

| CONSTRUCT<br>PUBLIC V |      |        |
|-----------------------|------|--------|
| Company               |      | Return |
|                       | Mean | 1,53   |
| ENKA İNŞAAT           |      | 19,52  |

| MEDICAL AND OTHER<br>SOCIAL SERVICES |        |  |  |  |  |
|--------------------------------------|--------|--|--|--|--|
| Company                              | Return |  |  |  |  |
| Mean                                 | 16,08  |  |  |  |  |
| ACIBADEM SAĞLIK                      | 17,97  |  |  |  |  |
| AFM FILM                             | 17,31  |  |  |  |  |

| INSURANCE COMPANIES |        |  |  |  |  |
|---------------------|--------|--|--|--|--|
| Company             | Return |  |  |  |  |
| Mean                | 8,73   |  |  |  |  |
| AKSIGORTA           | 15,32  |  |  |  |  |
| RAY SIGORTA         | 19,16  |  |  |  |  |

| REAL ESTATE INVESTMENT<br>TRUSTS |             |  |  |  |  |
|----------------------------------|-------------|--|--|--|--|
| Company                          | Return      |  |  |  |  |
|                                  | Mean -11,74 |  |  |  |  |
| NUROL GMYO                       | -11,05      |  |  |  |  |
| SINPAŞ GMYO                      | -63,85      |  |  |  |  |

| INVESTMENT TRUSTS    |      |        |  |  |  |
|----------------------|------|--------|--|--|--|
| Company              |      | Return |  |  |  |
|                      | Mean | -7,27  |  |  |  |
| BUMERANG YAT.ORT.    |      | -10,82 |  |  |  |
| ECZACIBAŞI YAT. ORT. |      | -1,94  |  |  |  |
| TACIRLER YAT, ORT.   |      | -35,21 |  |  |  |

| HOLDING AND INVESTMENT<br>COMPANIES |        |  |  |  |  |
|-------------------------------------|--------|--|--|--|--|
| Mean                                | -7,02  |  |  |  |  |
| ALARKO HOLDÍNG                      | 20,64  |  |  |  |  |
| BORUSAN YAT. PAZ.                   | 7,17   |  |  |  |  |
| DOĞAN HOLDING                       | 11,04  |  |  |  |  |
| DOĞAN YAYIN HOL.                    | -11,16 |  |  |  |  |
| GSD HOLDING                         | -14,56 |  |  |  |  |
| IHLAS HOLDING                       | -20,34 |  |  |  |  |
| KAV PAZARLAMA                       | 6,48   |  |  |  |  |
| KOÇ HOLDİNG                         | 19,22  |  |  |  |  |
| MAZHAR ZORLU HOLDÍNG                | -16,64 |  |  |  |  |
| SABANCI HOLDÍNG                     | 7,39   |  |  |  |  |
| TEKFEN HOLDING                      | -54,60 |  |  |  |  |
| YAZICILAR HOLDING                   | -0,80  |  |  |  |  |

## Appendix A Sectors and Stock Return (Cont'd)

| BASIC METAL INDUSTRIES |      |        |  |  |  |
|------------------------|------|--------|--|--|--|
| Company                |      | Return |  |  |  |
|                        | Mean | 2,22   |  |  |  |
| SARKUYSAN              |      | 15,30  |  |  |  |
| UZEL                   |      | -12,17 |  |  |  |

| WHOLESALE TO    | RADE |        |
|-----------------|------|--------|
| Company         |      | Return |
| 1               | Mean | -15,01 |
| INTEMA          |      | 2,74   |
| SANKO PAZARLAMA |      | -19,31 |

#### MANUFACTURE OF PAPER AND PAPER PRODUCTS, PRINTING AND PUBLISHING Company Return Mean -2,81 ALKÍM KAĞIT -1,27 BAK AMBALAJ -8,25 DENTAŞ AMBALAJ -8,40 DOĞAN BURDA -19,12 DURAN DOĞAN BASIM 0,45 IPEK MATBAACILIK -13,21 VÍKÍNG KAĞIT -10,79

| INFORMATION TECHNOLOGY |             |
|------------------------|-------------|
| Company                | Return      |
|                        | Mean -17,12 |
| ANEL TELEKOM           | 2,58        |
| ARMADA BİLGİSAYAR      | -38,16      |
| LÍNK BÍLGÍSAYAR        | -22,84      |
| PLASTIKKART            | -7,10       |

| OTHER MANUFACTURING INDUSTRY |        |
|------------------------------|--------|
| Company                      | Return |
| Mean                         | -5,38  |
| ADEL KALEMCÍLÍK              | 3,54   |
| GOLDAS KUYUMCULUK            | -9,05  |

| CONSUMER 1         | RADE |        |
|--------------------|------|--------|
| Company            |      | Return |
|                    | Mean | -5,71  |
| BÍM MAĞAZALAR      |      | 41,68  |
| BOYNER MAĞAZACILIK |      | -16,07 |

| ELECTRICITY, GAS AND WATER |      |        |
|----------------------------|------|--------|
| Company                    |      | Return |
|                            | Mean | -9,46  |
| AYEN ENERJÍ                |      | -10,49 |
| ZORLU ENERJÍ               |      | -9,77  |

| RESTAURANTS AND HOTELS |        |
|------------------------|--------|
| Company                | Return |
| Mea                    | -7,49  |
| MARMARÍS ALTINYUNUS    | -4,84  |
| METEMTUR OTELCÍLÍK     | -15,91 |

## Appendix A Sectors and Stock Return (Cont'd)

| MANUFACTURE OF FOOD,<br>BEVERAGE AND TOBACCO   |        |  |
|--|--------|--|
| Company  |        | Return   |
|  | Mean   | -7,85  |
| ANADOLU EFES   |        | 12,08  |
| COCA COLA ÍÇECEK   |        | -9,51  |
| KEREVİTAŞ GIDA   |        | -0,36  |
| KRÍSTAL KOLA   |        | -18,80   |
| MERKO GIDA   |        | -2,24  |
| PINAR SU   |        | -3,52  |
| PINAR SÜT  |        | 14,34  |
| PINAR ET VE UN   |        | 11,91  |
| ÜLKER BISKÜVI  |        | -12,70   |
| TEXTILE, WEARING APPAREL AND LEATHER INDUSTRIES  |        |  |
| Company  |        | Return   |
|  | Mean   | -11,82   |
| AKAL TEKSTÍL   |        | -4,96  |
| AKIN TEKSTÍL   |        | -8,15  |
|  |        |  |
| AKSU IPLIK   |        | -17,84   |
| AKSU IPLÍK<br>ALTINYILDIZ  |        | -17,84<br>-2,10  |
|  |        |  |
| ALTINYILDIZ  |        | -2,10  |
| ALTINYILDIZ<br>BERDAN TEKSTÍL  |        | -2,10<br>-23,82  |
| ALTINYILDIZ<br>BERDAN TEKSTİL<br>BISAŞ TEKSTİL   |        | -2,10<br>-23,82<br>-23,35  |
| ALTINYILDIZ<br>BERDAN TEKSTİL<br>BISAŞ TEKSTİL<br>BOSSA  |        | -2,10<br>-23,82<br>-23,35<br>4,69  |
| ALTINYILDIZ<br>BERDAN TEKSTİL<br>BISAŞ TEKSTİL<br>BOSSA<br>BOYASAN TEKSTİL   |        | -2,10<br>-23,82<br>-23,35<br>4,69<br>-25,58  |
| ALTINYILDIZ BERDAN TEKSTİL BISAŞ TEKSTİL BOSSA BOYASAN TEKSTİL DERİMOD   |        | -2,10<br>-23,82<br>-23,35<br>4,69<br>-25,58<br>(6,98)  |
| ALTINYILDIZ BERDAN TEKSTİL BISAŞ TEKSTİL BOSSA BOYASAN TEKSTİL DERİMOD DESA DERİ   |        | -2,10<br>-23,82<br>-23,35<br>4,69<br>-25,58<br>(6,98)<br>-24,93  |
| ALTINYILDIZ BERDAN TEKSTİL BISAŞ TEKSTİL BOSSA BOYASAN TEKSTİL DERIMOD DESA DERİ   |        | -2,10<br>-23,82<br>-23,35<br>4,69<br>-25,58<br>(6,98)<br>-24,93<br>-9,18                               |
| ALTINYILDIZ BERDAN TEKSTİL BISAŞ TEKSTİL BOSSA BOYASAN TEKSTİL DERİMOD DESA DERİ IDAŞ METEMTEKS  |        | -2,10<br>-23,82<br>-23,35<br>4,69<br>-25,58<br>(6,98)<br>-24,93<br>-9,18<br>-25,73                     |
| ALTINYILDIZ BERDAN TEKSTİL BISAŞ TEKSTİL BOSSA BOYASAN TEKSTİL DERİMOD DESA DERİ IDAŞ METEMTEKS YATAŞ                                  | CLUDIN | -2,10<br>-23,82<br>-23,35<br>4,69<br>-25,58<br>(6,98)<br>-24,93<br>-9,18<br>-25,73<br>-15,03<br>-14,64 |
| ALTINYILDIZ BERDAN TEKSTİL BISAŞ TEKSTİL BOSSA BOYASAN TEKSTİL DERİMOD DESA DERİ İDAŞ METEMTEKS YATAŞ YÜNSA  MANUFACTURE PRODUCT S İNC | CLUDIN | -2,10<br>-23,82<br>-23,35<br>4,69<br>-25,58<br>(6,98)<br>-24,93<br>-9,18<br>-25,73<br>-15,03<br>-14,64 |

GENTAŞ

KELEBEK MOBÍLYA

| MANUFACTURE OF CHEMICALS AND PLASTIC PRODUCTS |      |        |
|---|------|--------|
| Company                                       |      | Return |
|   | Mean | 2,06   |
| ALKİM KİMYA                                   |      | -0,16  |
| AYGAZ   |      | 12,18  |
| BRISA   |      | 13,82  |
| DYO BOYA                                      |      | 2,99   |
| ECZACIBAŞI İLAÇ                               |      | -0,24  |
| EGEPLAST                                      |      | -9,68  |

| MANUFACTURE OF NON-<br>METALLIC<br>MINERAL PRODUCTS |          |
|---|----------|
| Company   | Return   |
| M   | ean 5,25 |
| EGE SERAMÍK   | (12,77)  |
| KÜTAHYA PORSELEN                                    | -4,43    |
| NUH ÇİMENTO   | 13,36    |

| MANUFACTURE OF FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT |        |
|---|--------|
| Company   | Return |
| Mean  | -2,49  |
| ANADOLU ISUZU   | -2,97  |
| ARÇELİK   | 16,82  |
| BEKO-GRUNDÍG ELEKTRONÍK   | -6,76  |
| DÍTAŞ DOĞAN   | 2,66   |
| EGE ENDÜSTRÍ  | 6,42   |
| FORD OTOSAN   | 23,83  |
| ÍHLAS EV ALETLERÍ   | -0,77  |
| KARSAN OTOMOTIV   | -20,37 |
| PARSAN  | -2,79  |
| VESTEL BEYAZ EŞYA   | -30,28 |
| VESTEL  | -13,53 |

7,63

-14,03

# Appendix B Grading Methodology of Score

| Independent Variable                         | Grading Methodology   |
|--|---|
| Existence of Performance<br>Based Government | Variable value 1 is assigned if the board recognizes performance based government and 0 is assigned if there is no performance based government   |
| Performance<br>Based Remuneration            | Variable value 1 is assigned if the board recognize performance based remuneration 0 is assigned if there is no performance based remuneration.   |
| Reviews of<br>Strategic Goals                | Variable value 1 is assigned if the board reviews strategic goals 0 is assigned if there are no reviews.  |
| Restriction of<br>Board Duties               | Variable value 1 is assigned if board duties out of the company have been restricted 0 is assigned if there are no restrictions.  |
| Existence of Internal<br>Control Mechanism   | Variable value 1 is assigned if internal control and risk management mechanism has been established.  |
| Frequency of<br>Board Meetings               | Variable is scored from 1 to 5 depending on the frequency of the meetings. For example 1 is assigned if there are zero to six meetings per year and 5 is assigned if there are more than 20 meetings. |
| Existence of<br>Ethical Rules                | Variable value 1 is assigned if ethical rules have been established by the board of directors, 0 is assigned if board did not establish the ethical rules.  |
| Updated Website                              | Variable value 1 is assigned if the company's website provides information mentioned in CMB, and 0 is assigned if the required information is lacking.  |
| Long Term<br>Goal Reviews                    | Variable is scored from 1 to 4 depending on the frequency of the reviews.   |
| Proportion of the<br>Executive Members       | Variable is scored from 1 to 10 depending on the rate of executive members.   |

# Appendix B Grading Methodology of Score (Cont'd)

| Independent Variable                      | Grading Methodology  |
|---|--|
| Share Percentage of<br>Family Members     | Variable is scored from 1 to 10 depending on the share percentage. Since less family members are associated with high performance 10 is given to the companies which have lower level of share percentage and 1 is given to the ones which have higher share percentage. |
| Level of Free Float                       | Variable is scored from 1 to 10 depending on the rate of free float. Grade 10 is given to the companies which have higher level of free float and 1 is given to the ones which have less public shareholders.  |
| Family is the controlling shareholder     | Variable value is 1 is assigned if the family members have the status of controlling shareholder < 50%, and 0 is assigned if the family members are not the controlling shareholder.   |
| Board Size                                | The higher scores are assigned for the larger boards.  |
| Proportion of<br>Family Members           | Variable is scored from 1 to 10 depending on the extent of the share. Grade 10 is given to the companies which have lower proportion of family members and 1 is given to the ones which have higher proportion of family members.  |
| CEO is a Board Member                     | Variable value 1 is assigned if the CEO is not a board member, 0 is assigned if the CEO is a member of the board.  |
| Joint CEO/Board<br>Chair Structure Exists | Variable value 1 is assigned if the same person does not hold the roles of chair and CEO and 0 is assigned if joint CEO/board chair structure exists.  |
| Existence of an<br>Audit Committee        | Variable value 1 is assigned if there exists an audit committee, and 0 is assigned if there is no such establishment.  |
| Existence of a<br>CG Committee            | Variable value 1 is assigned if there exists a corporate governance committee, and 0 is assigned if there is no such establishment.  |
| Existence of Equal<br>Voting Rights       | Variable value 1 is assigned if the voting rights are equal, 0 is assigned if there exists privileged voting system.   |
| Existence of Negative<br>Veto Rights      | Variable value 1 is assigned if the board members does not have a negative veto right and 0 is assigned if members have veto rights.   |
| Stakeholders<br>Participation             | Variable value 1 is assigned if a model exist for the stakeholder participation and 0 is assigned if there is no participation.  |
| Performance<br>Appraisals of BOD          | Variable value 1 is assigned if the board appraises members' performance and 0 is assigned if there are no appraisals.   |

# Appendix B Grading Methodology of Score (Cont'd)

| Independent Variable                             | Grading Methodology  |
|--|--|
| Independency of Chairman of the Audit Committee  | Variable value 1 is assigned if the chairman of the audit committee is independent, and 0 is assigned if the chairman is an insider.   |
| Chairman of the audit committee is non-executive | Variable value 1 is assigned if the chairman of the audit committee is non-executive, and 0 is assigned if the chairman is an executive member.  |
| Independency of<br>Chairman of the CG Committee  | Variable value 1 is assigned if the chairman of the corporate governance committee is independent and 0 is assigned if the chairman is insider.  |
| Disclosure of the<br>Dissenting Opinions         | Variable value is 1 is assigned if the dissenting opinions of the board members have been disclosed to public and 0 is assigned if there is no disclosure.   |
| Existence of<br>Outside Consultants              | Variable value 1 is assigned if the board has been advised by outside consultants, and 0 is assigned if there are no consultants.  |
| Existence of<br>Training Programs for BOD        | Variable value 1 is assigned if any training program have been applied for board members   |
| Qualifications of BOD                            | Variable value 1 is assigned if the qualifications of board coincide with CMB Principles and 0 is assigned if the qualifications do not coincide.  |
| Board Election<br>Regulations                    | Variable value 1 is assigned if there exists principles for the election of board is present in the articles of association, and 0 is assigned if there are no principles exist.   |
| Age Range of<br>Family Members in Board          | Variable is scored from 1 to 4, 1 is assigned if there exist youngest family members in the board.   |
| Existence of<br>Independent Members              | Variable is scored from 1 to 10 depending on the rate of independent members. Since existence of independent members are associated with high performance 10 is given to the companies which have more independent members and 1 is given to the ones which have less independent members. |

# Appendix C Survey Questions

| iv. | Intensity of Outside Management and Control                                      |          |
|-----|--|----------|
| 1-  | The proportion of the number of executive members.                               | Interval |
|     | (10) 91-100% (9) 81-90% (8) 71-80% (7) 61-70% (6) 51-60%                         |          |
|     | (5) 41-50% (4) 31-40% (3) 21-30% (2) 11-20% (1) 0-10%                            |          |
| 2-  | Whether independent members exist in the BOD.                                    | Yes/No   |
| 3-  | The proportion of the number of independent members.                             | Interval |
|     | (10) 91-100% (9) 81-90% (8) 71-80% (7) 61-70% (6) 51-60%                         |          |
|     | (5) 41-50% (4) 31-40% (3) 21-30% (2) 11-20% (1) 0-10%                            |          |
| 4-  | The Chairman of the audit committee is an independent member.                    | Yes/No   |
| 5-  | The Chairman of the audit committee is non-executive.                            | Yes/No   |
| 6-  | The Chairman of the corporate governance committee is independent                | Yes/No   |
| 7-  | The Chairman of the corporate governance committee is non-executive.             | Yes/No   |
| 8-  | Dissenting opinions of the Board members have been disclosed to public.          | Yes/No   |
| 9-  | The Board has outside consultants.   | Yes/No   |
|     |  |          |
| v.  | Board Skill Levels   |          |
| 1-  | Any training program has been applied for Board members.                         | Yes/No   |
| 2-  | Qualifications of Board coincide with CMB Principles.                            | Yes/No   |
| 3-  | Principles for the election of Board are present in the articles of association. | Yes/No   |
| 4-  | The lowest age range of a family member to be appointed.                         | Interval |
|     | 1) 18 - 35, 2) 36- 40, 3)51 - 65+, 4) No family member                           |          |
| 5-  | Any compensation granted to the members of the Board.                            | Yes/No   |
| 6-  | Remunerations of the Board are determined according to performance.              | Yes/No   |

# **Appendix C Survey Questions (Cont'd)**

| i.   | Ownership Structure   |          |  |
|------|---|----------|--|
| 1-   | The firm was founded by one or more families/outsiders.                 | Interval |  |
|      | (1) Members of one family   |          |  |
|      | (2) Members of two families   |          |  |
|      | (3) Family + outside real or legal persons                              |          |  |
| 2-   | The share percentage of family members                                  |          |  |
|      | (1) 91-100% (2) 81-90% (3) 71-80% (4) 61-70% (5) 51-60%                 |          |  |
|      | (6) 41-50% (7) 31-40% (8) 21-30% (9) 11-20% (10) 0-10%                  |          |  |
| 3-   | - The level of free float   |          |  |
|      | (1) 91-100% (2) 81-90% (3) 71-80% (4) 61-70% (5) 51-60%                 |          |  |
|      | (6) 41-50% (7) 31-40% (8) 21-30% (9) 11-20% (10) 0-10%                  |          |  |
| 4-   | The family members are the ultimate controlling shareholder (> %50)     | Yes/No   |  |
| ii.  | Board Composition   |          |  |
| 1-   | The total number of members in the BOD.                                 | Interval |  |
| 2-   | The proportion of family members to total members of the BOD.           |          |  |
|      | (1) 91-100% (2) 81-90% (3) 71-80% (4) 61-70% (5) 51-60%                 |          |  |
|      | (6) 41-50% (7) 31-40% (8) 21-30% (9) 11-20% (10) 0-10%                  |          |  |
| 3-   | Whether the CEO is a member of the BOD.                                 | Yes/No   |  |
| 4-   | Whether a joint CEO-Board chair structure exists.                       | Yes/No   |  |
| 5-   | Whether the BOD has established an audit committee.                     | Yes/No   |  |
| 6-   | Whether the BOD have established a corporate governance committee.      | Yes/No   |  |
| 7-   | Whether the members have been granted equal voting rights.              | Yes/No   |  |
| 8-   | Whether the members have been granted with negative veto rights.        | Yes/No   |  |
| iii. | Execution of Board Responsibilities                                     |          |  |
| 1-   | Participation of stakeholders in management.                            | Yes/No   |  |
| 2-   | Performance appraisals of the BOD.                                      | Yes/No   |  |
| 3-   | Whether the BOD recognizes performance based government.                | Yes/No   |  |
| 4-   | Executive members remunerated according to their performance.           | Yes/No   |  |
| 5-   | Board reviews of strategic goals.                                       | Yes/No   |  |
| 6-   | Whether Board duties outside of the company have been restricted.       | Yes/No   |  |
| 7-   | An internal control and risk management mechanism has been established. | Yes/No   |  |
| 8-   | The number of Board meetings held in the related period.                |          |  |
|      | 1) 0-6, 2) 6-12, 3) 12-18, 4) 18-24, 5)25+                              |          |  |
| 9-   | Whether ethical rules have been established by the BOD.                 | Yes/No   |  |
| 10-  | Whether the company's website provides information mentioned in CMB.    | Yes/No   |  |
| 11-  | The frequency of reviews of long term goals by the Board.               | Interval |  |
|      | 1)Once a year, 2)Every six months 3)Every quarter, 4)Every month        |          |  |

## Appendix D

## **Stock Return Explanations**

Monthly and compounded returns of stocks were calculated by using the closing prices on the last trading day of each month. Compounded returns are calculated with the following assumptions:

- The dividend received during the month is reinvested to buy back the concerning stock at the closing price at the end of the month,
- Pre-emptive rights are exercised in case the price of the stock exceeds its subscription price.

The prices of new shares (shares that are not entitled to dividends from previous year's net profits) were not taken into account in the calculation of returns.

The abbreviations used in the tables and the definitions of the terms are indicated below.

**HAF/IIF**: Initial public offering or first trading price.

**Price :** The closing price of a stock with a nominal value of TL 1,000/TRY 1 on the last trading day of the month unless stated otherwise. If the stock is not traded during the month, it is the last closing price of the stock.

**Monthly Return :** The monthly return of a stock is calculated according to the following formula. US Dollar based monthly returns are calculated by adjusting the TL/TRY based returns according to monthly devaluation rate of US Dollar.

Gi: Return for the month "i"

Fi: The closing price the stock on the last trading day of the month "i"

**BDL**: The number of rights issues received during the month

**BDZ**: The number of bonus issues received during the month

**R**: The price for exercising rights (i.e. subscription price)

T: The amount of net dividends received during the month for a stock with a nominal value of TL 1,000/TRY 1

Fi-1: The closing price of a stock on the last trading day of the month "i-1"

### Appendix D Stock Return Explanations (Cont'd)

#### **Compounded Return:**

This shows the value of a stock that is sold and bought at the end of each month relative to its value at the beginning period and is calculated according to the following formula. In calculation of US Dollar based compounded returns, US Dollar based monthly returns are used.

BGn = (1+G1) (1+G2).... (1+Gn) = 
$$\prod_{i=1}^{n}$$
 (1+Gi)

**BGn**: The compounded return for the month "n" **BGi**: The compounded return for the month "i"

 $\mbox{\bf Gi}$  : Return for the month "i"

n: The number of periods (months)

# Appendix E Curriculum Vitae