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**OWNERSHIP STRUCTURE AND CORPORATE
GOVERNANCE IN TURKISH STOCK COMPANIES**

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Yemin Metni

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ABSTRACT

Master Thesis

Ownership Structure and Corporate Governance

In Turkish Stock Companies

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The importance of corporate governance has increased in the companies after the big corporate scandals. Financial crisis emerged globally or domestically also draw attention to the corporate governance issue as a key element for longer and better financial performance.

The aim of the study is to analyze the impacts of ownership structure on performances of Turkish non-financial firms listed on Istanbul Stock Exchange (ISE) by considering the financial crisis emerged in 2001 and 2008. The sample of the study consists of all non-financial firms quoted at ISE and the firm-level data for the sample period covers the years from 1999 to 2008 is obtained from the official website of ISE.

In the first chapter corporate governance and its principles are defined. This chapter also discussed the possible benefits of corporate governance issues. Second chapter reviews the literature about the effects of corporate governance

and ownership structure on firm performance. The empirical analysis of the study is also provided in this chapter.

The results show that the relationship between ownership structure and firm performance is statistically significant and the direction is negative for free float rate and it is statistically insignificant for first major shareholder. Second major shareholder is only significant to explain Tobin's Q in OLS model. The relationship between second major shareholder and Tobin's Q is negative in this model. All indicators of ownership structure show insignificant relationship with return on equity.

Key Words: 1) Corporate Governance, 2) Ownership Structure, 3) Firm Performance

ÖZET

Yüksek Lisans Tezi

Türkiye’de Halka Açık Şirketlerde Kurumsal Yönetim ve Mülkiyet Yapısı

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Şirketlerde kurumsal yönetime verilen önem yaşanan firma skandalları sonucunda artmıştır. Dünyada ve Türkiye’de ortaya çıkan finansal krizler, uzun soluklu ve daha iyi finansal performansın önemli bir unsuru olarak görülen kurumsal yönetim anlayışına dikkat çekmiştir.

Bu çalışmanın amacı, İstanbul Menkul Kıymetler Borsası’nda (İMKB) işlem gören reel sektör firmalarının mülkiyet yapılarının performansları üzerine etkisini 2001 ve 2008 yıllarında yaşanan krizleri de göz önünde bulundurarak analiz etmektir. Çalışmanın örnekleme İMKB’ye kote olan tüm reel sektör firmalarını kapsamaktadır ve örneklem dönemini oluşturan 1999 ve 2008 yıllarındaki firma bazında veriler İMKB’nin resmi internet sitesinden alınmıştır.

Birinci bölümde, kurumsal yönetim ve ilkeleri tanımlanmaktadır. Bu bölümde ayrıca kurumsal yönetimin olası faydaları ele alınmıştır. İkinci bölüm, kurumsal yönetim ve mülkiyet yapısının firma performansı üzerine etkileri hakkında yapılan literatür taramasını sunmaktadır. Çalışmanın ampirik sonuçları yine bu bölümde anlatılmaktadır.

Elde edilen sonuçlara göre, mülkiyet yapısı göstergelerinden olan dolaşımdaki pay ile şirket performansı arasında istatistiksel olarak anlamlı ve negatif yönlü bir ilişki olduğu görülmüş, ancak birinci büyük ortağın payı ile şirket performansı arasında istatistiksel olarak anlamsız bir ilişki olduğu tespit edilmiştir. İkinci büyük ortağın payı ise, şirket performans göstergelerinden olan Tobin's Q'yu sıradan en küçük kareler yöntemine göre negatif yönlü bir ilişki ile açıklamaktadır. Mülkiyet yapısı göstergelerinden hiçbiri şirket performansı göstergelerinden olan özsermaye karlılığını açıklamada anlamlı değildir.

Anahtar Kelimeler: 1) Kurumsal Yönetim, 2) Sermaye Yapısı, 3) Firma Performansı

**OWNERSHIP STRUCTURE AND CORPORATE GOVERNANCE IN
TURKISH STOCK COMPANIES**

YEMİN METNİ	ii
TEZ ONAY SAYFASI	iii
ABSTRACT	iv
ÖZET	vi
INDEX	viii
TABLE LIST	x
FIGURE LIST	xi
INTRODUCTION	1

**CHAPTER 1
CORPORATE GOVERNANCE**

1.1. SCOPE OF CORPORATE GOVERNANCE	4
1.2. PRINCIPLES OF CORPORATE GOVERNANCE	8
1.3. BENEFITS OF CORPORATE GOVERNANCE	10
1.3.1. Competition for Financial Resources with Minimum Cost	10
1.3.2. Efficient Resource Utilization	11
1.3.3. Company Performance Growth	11
1.3.4. Prevention of Lappage and Sustainability	12
1.3.5. Mergers and Acquisitions	13
1.4. OWNERSHIP STRUCTURE	13

**CHAPTER 2
EMPIRICAL ANALYSIS: EFFECTS OF OWNERSHIP STRUCTURE ON
FIRM PERFORMANCE**

2.1. LITERATURE REVIEW	16
2.2. DATA	20
2.2.1. Dependent Variables	22
2.2.1.1. Tobin's Q	22

2.2.1.2.	Return on Asset	22
2.2.1.3.	Return on Equity	22
2.2.2.	Independent Variables	23
2.2.2.1.	First Major Shareholder	23
2.2.2.2.	Second Major Sharholder	23
2.2.2.3.	Free Float Rate	24
2.2.2.4.	Financial Leverage Ratios	24
2.3.2.4.1.	Debt-to-Equity Ratio	24
2.3.2.4.2.	Debt Ratio (Debt-to-Assets Ratio)	25
2.2.2.5.	Total Assets	25
2.2.2.6.	Dividend Payout Ratio	26
2.2.3.	Dummy Variables	26
2.2.3.1.	Crisis Year 2001	27
2.2.3.2.	Crisis Year 2008	27
2.3.	METHODOLOGY	28
2.4.	EMPIRICAL RESULTS	33
2.4.1.	Regression Analysis	38
2.4.1.1.	Regression Analysis for Tobin's Q	38
2.4.1.2.	Regression Analysis for Return on Asset	41
2.4.1.3.	Regression Analysis for Return on Equity	44
	CONCLUSION	47
	REFERENCES	50

TABLE LIST

Table 1: Dependent, Independent, and Dummy Variables	21
Table 2: Correlation Matrix	30
Table 3: Regression Results for Tobin's Q including Debt Ratio	31
Table 4: Ownership Structure	33
Table 5: Distribution of Sub-industries from 1999 through 2008	35
Table 6: Sub-industries on Major Shareholders Basis	37
Table 7: Regression Results for Tobin's Q	39
Table 8: Regression Results for Return on Assets	42
Table 9: Regression Results for Return on Equity	45

FIGURE LIST

Figure 1: Proportional Representation of Major Shareholder

34

INTRODUCTION

Globalization brings tough competition rules to the markets and corporations seek alternative ways to exist in the near future. Institutionalization and corporate governance can be defined as indispensable issues on the basis of observations in the developed economies. Modern administration and management philosophy is widely spread nowadays. Hence, sustainability plays an important role and is showed as a primary target.

The importance of corporate governance has increased in publicly held companies after Enron and WorldCom scandals. Financial crisis emerged globally or domestically also draw attention to the corporate governance issue as a key element for longer and better financial performance. “Corporate governance has been discussed as one of the main factors that caused the East Asian financial crisis in 1997-98 (e.g., Claessens, Djankov, and Xu, 2000; Mitton, 2002; Baek, Kang, and Park, 2004)” (Lee, 2009). “Following the Asian crisis, the consecutive crisis in other emerging markets such as Russia, Mexico, Brazil, Argentina, Turkey, etc. pushed policy makers and many researchers to conduct research about the relationship between ownership structure and firm value” (Kırkulak, 2009).

Turkish firms have different problems. The firms have limited financing opportunities due to small-scale financial system, and they have not reached the efficiency and high standards, have stagnation in partnership and growth perspectives due to the economic conditions and insufficient reporting. These problems block Turkish companies to have physical capital and human resources needed. At this point, we can consider corporate governance for companies’ long term performance, profitability, resource allocation and utilization, access to capital and financial markets and meeting potential partners. Because they should express themselves in intelligible way to find their potential resources of financing. In other words, they need introduction and information strategies to impress stakeholders outside the company

and future shareholders. Moreover, this kind of strategy is necessary for the company success and to attract labour market and qualified directors.

Nowadays, numeric values that show companies' profitability and performance are not enough to predict their future performances and values. The key elements are the sustainability of the performance and success indicators. Sustainability is an extremely important indicator that includes and evaluates the internal and external factors. These indicators consist of economic, environmental and social criteria, corporate and financial governance. Hence, sustainable company performance is not made up of just financial performance, profitability and its growth. These indicators carry weight in evaluating their success and they only present particular period for long term. However, sustainable performance criteria present long term and more comprehensive frame. Sustainability is connected with the management of risks come from economic, environmental and social developments at the same time. Per contra, organizational and financial risks are also managed by corporate governance. So, all their results reflect on firm value and maximize the stakeholders' wealth. In other words, corporate sustainability aims to create value for shareholders in long term.

The relationship between ownership structure, corporate governance and performance has been the subject of an important debate in the finance literature. Demsetz and Villalonga (2001) indicates that the debate goes back to the Berle and Means (1932) thesis, which suggests that a negative relationship should be observed between the portions of shareholders and firm performance. On the other hand, "Demsetz (1983) argues that the ownership structure of a company should be thought of as an endogenous outcome of decisions that reflect the influence of shareholders and of trading on the market for shares. The ownership structure that emerges, whether concentrated or diffuse, ought to be influenced by the profit-maximizing interests of shareholders, so that, as a result, there should be no systematic relation between variations in ownership structure and variations in firm performance." (Demsetz and Villalonga, 2001).

In this study, the relationship between firm performance, as measured by Tobin's Q, return on asset (ROA) and return on equity (ROE) and ownership structure for the non-financial Turkish firms listed on Istanbul Stock Exchange is examined.

The aim of the study is firstly define the corporate governance and explain the OECD Corporate Governance Principles. Then the benefits of corporate governance are explained. Information about the previous empirical studies in worldwide and Turkey on corporate governance, ownership structure and firm performance issues is provided. Then the empirical analysis using the firm-level panel data is presented explaining the impact of some descriptive variables on firms' financial performance.

CHAPTER 1

CORPORATE GOVERNANCE

1.1 SCOPE OF CORPORATE GOVERNANCE

The Organisation for Economic Co-operation and Development (OECD) defines the corporate governance as ‘a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.’

O'Donovan (2002) defines corporate governance as ‘an internal system encompassing policies, processes and people, which serves the needs of shareholders and other stakeholders, by directing and controlling management activities with good business savvy, objectivity, accountability and integrity. Sound corporate governance is reliant on external marketplace commitment and legislation, plus a healthy board culture which safeguards policies and processes’.

In the beginning, corporate governance concept was developed to solve multi national firms’ problems when the firms which are not public and public bodies have started to derive benefit from being institutionalized. Shareholders may have investments in several companies. However, company management is controlled by professional directors who are authorized in the name of these shareholders. In other words, firm’s ownership and managerial decisions are controlled by different people. So, the entitled parties are the shareholders and the directors manage the company. This situation has brought the problem that shareholders do not have enough power to audit professional directors’ actions so the directors have become very powerful to manage the company activities and sometimes used this power for their own benefits which are against the shareholders’. Of course shareholders may be closely involved with the decisions of the company by asserting their rights, electing the board and firing the

directors that they think they are insufficient but they were not enough. Nevertheless, corporate governance concept was developed to determine these issues, which produce chaos.

On the other hand, there may be the majority ownership for the company. In that kind of companies, this majority owner has enough power and right to audit the management but there can still be some risks for the minority owners. For example, majority owner may play along with the management to the disadvantage of the minority owners. It is more common in countries which do not have enough legal cautions. 'La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 1998, 2000) show that the legal framework that firms and investors face differs significantly around the world, in part, because of differences in legal origin.' (Garay and Gonzalez, 2008).

Shareholders do not always have enough time or power to audit the companies which they hold the shares of. This situation might make the directors to act against the shareholders just to make some benefits for their own. Corporate governance concept is very important especially for companies that ownership and management are separated. The reason of why corporate governance is created is that equity owners do not have proportional power. Whilst management implies to make plans for some beneficial purposes, to organize, to exercise, to coordinate and to take actions; corporate governance is interested in how these actions are going to be taken in favor of interest groups and organizational purposes.

It is not always possible to meet the expectations of all interest groups equally. For example according to shareholders, the efficiency of the company depends on the maximization of the returns of their investments; to financial establishments depends on the discharge of the debts; to employees efficiency depends on how secure it is. However, there can be different expectations between shareholders like stock dividend distribution. It becomes a very critical mission for a company to meet expectations, at least sometimes.

Why so important? Corporate governance provides balance and control what is needed and meets benefits of controlling shareholders, small shareholders, board,

professional directors with employees, creditors etc. Corporate governance can provide it by its principles which are being just and fair, responsibility, transparency and accountability.

Corporate governance has become more famous in publicly held companies after Enron and WorldCom scandals. After the Parmalat scandal in Italy, when the family firms have been started to be examined more carefully, the importance and role of the boards and transparency of management, protection of small shareholders have gained ground. Del Brio, Maia-Ramires and Perote (2006) indicate that ‘the collapses of Enron and Parmalat made it clear that firms should undergo further modifications to protect their shareholders’ interests, to increase the firm’s transparency and to guarantee shareholders' reliance on directors' management.’

Corporate governance is not a guarantee of operational profitability in business world. Correct and good management takes effect both for publicly held companies and non-publicly held companies. A firm can only

- be efficient and effective
- reach the targets
- take actions under legal and social responsibilities by institutionalization.

In recent years, people have been confusing management and corporate governance. We can define management as the actions like daily production, selling, marketing accounting, human resources processed by only professionals. This kind of companies have purchasing regulations, accounting procedures; know how to do market research; have financing policies and human resources policies. They are managed in particular procedures and regulations by good educated professionals.

But corporate governance is a risk management. In corporate governance, it is important to have a board consists of some independent directors who manage the controlling shareholders, make a move, can say “no” when it is necessary. Especially in growing companies, experienced and internationally qualified board members give

weight to the company. It is not possible for consultants to do the same functions. They can only give advises on what they are consulted.

Transparent and reliable financial statements are necessary to be able to analyze the company. Besides, independent and finance experienced employees and audit committee increase the liabilities of the reports, minimize the agent cost. Especially in family firms, speaking family problems in family council and firm problems in board is a pre-condition. Planned, updated and systematic board meetings provide fettering responsibilities, planning and supervisions. In conclusion, these meetings avert wastes of time. Moreover, generations after the founder might not be willing, qualified or well educated to run the firm efficiently. In this case, internal audit mechanism and risk management provided by the board will provide sustainability for the firm.

Turkey has covered serious distance in recent years. First of all is the corporate governance principles accepted by Capital Markets Board (CMB). There is “apply it; if you can’t, explain it” principle which is valid for publicly held companies. These principles were accepted in July 2003 and then revised in February 2005. But of course corporate governance is more important for small and medium-sized enterprises (“SME”) than publicly held big companies. SME are related to good and correct managements as much as to economic conjunctures. Therefore, new Turkish Commercial Law draft is a kind of revolution. It is very important present transparency in financial reports, risk management, audit concept and importance of boards to the Turkish business world. Otherwise, Turkish firms will not be able to protect their competitive advantages.

Furthermore, if there is a doubt that companies are not well directed, the capital will run to other countries. Accordingly, good corporate governance is the most important condition to provide sustainable growth.

1.2 PRINCIPLES OF CORPORATE GOVERNANCE

Corporate governance is only part of the larger economic context in which firms operate, which includes, for example, macroeconomic policies and the degree of competition in product and factor markets. The corporate governance framework also depends on the legal, regulatory, and institutional environment. In addition, factors such as business ethics and corporate awareness of the environmental and societal interests of the communities in which it operates can also have an impact on the reputation and the long term success of a company (Barbu and, Bocean, 2007).

Corporate governance must make an effort to satisfy shareholders and interest groups equally and make the company reach a sustainable performance level in long run. Arrangements for corporate governance should be focused on four basic principles: being just and fair, transparency, accountability and responsibility in able to find resources necessary.

“The principle of ‘Justice and Fairness’ implies that corporate management has to act just and fair to all stakeholders. It also compels the management watch over the shareholders’ rights. An OECD study considers that corporate governance is the system by which business corporations are directed and controlled.” (OECD, 1999). The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set, and the means of attaining those objectives and monitoring performance. OECD Corporate Governance Principles make it very clear on being just and fair in five clauses.

CLAUSE 1: The corporate governance framework should protect and facilitate the exercise of shareholders’ rights.

This clause defines the shareholders as the owners. Shareholders have the right to maintain their benefits from the company or to sell off them. Good corporate governance protects this ownership right and has the law codes, the procedures and the

applications on record and transfer methods. This clause also has the definitions of accession of shareholders to company resolutions such as board election, approbation of important mergers and acquisitions, etc.

CLAUSE 2: The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights.

According to this clause, the legal framework is supposed to cover the law codes that protect the minority and foreign shareholders against the majority shareholder, directors or board.

CLAUSE 3: The corporate governance framework should recognize the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises.

This clause indicates that companies should consider about the community while they are aiming at the benefits of the shareholders. But the Corporate Governance Principles have the minimum requirements for the responsibility codes so companies should take more “responsibility actions” than they are supposed to, according to legal codes if they are willing to have better corporate governance. In the light of this view, corporate governance suggests that employees should play a role in corporate decisions and create a medium where all stakeholders are able to express their possible concerns.

CLAUSE 4: The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company.

This clause implies that companies must have true, apparent and comparative information sharing. Also, investors can not find an opportunity to make an investment if they do not have satisfactory information. Thence, good corporate governance requires companies’ declarations of their former performance and forward looking

goals and possible risks that the company will take. This principle also encourages new arrangements about declaration not just after-action feedback but also of pre-action and during action feedbacks.

CLAUSE 5: The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders.

Unlike transparency principle, accountability is just about the after-action. It provides the accountability of the board of directors' and also lets the board monitor the chief executive officer (CEO) and other executive officers, therefore responsibilities between the board and the executive officers must be clear. Otherwise the accountability will be doubtful. Thus, the arrangements on structure of boards are very important in report and codes about corporate governance.

1.3 BENEFITS OF CORPORATE GOVERNANCE

The benefits of corporate governance can be listed and detailed as follows:

1.3.1 Competition for Financial Resources with Minimum Cost

One of the main reasons why the corporate governance is very important for national economies is global competition. Nowadays, international investors represent outstanding financial resources for the companies. In contrast with that, the accountability of the resources provided by international investors has become more important than it used to be, especially after the capital markets became global. 'Corporate governance practices can determine the ease with which companies are able to access capital markets. Well-governed firms are perceived as investor-friendly, providing greater confidence in their ability to generate returns without violating shareholder rights.' (The Russia Corporate Governance Manual, 2004). Countries which are more successful to meet expectations are more advantageous in the

international competition for the foreign capital. Companies should inspire confidence to investors if they need more financial resources and this may be the only way to find them. Besides, companies should use these resources for the purposes that already agreed by the investors if they really want that confidence. If the companies try to find new capital by the sale of the shares, they increase the number of the shareholders in the economy. Investors pay attention for the company management if it is good or bad as much as they do for the company's financial reports.

1.3.2 Efficient Resource Utilization

The corporate governance encourages efficient resource utilization not only for companies but also for national economies. Good economic systems need that debts and equities must be used by the companies which are really successful in the utilization of them. So, the corporate governance satisfies the social demands by protecting and expanding the scarce resources.

Good corporate governance makes the capital utilization more efficient by providing a possibility to change directors who do not utilize the resources efficiently, do not have enough skills or works for his/her personal benefits which are against the stakeholders'. Besides, it encourages directors' administration in favor of the company which is another reason why corporate governance is good for efficient resource utilization.

1.3.3 Company Performance Growth

'Improvement in the company's governance practices leads to an improvement in the accountability system, minimizing the risk of fraud or self-dealing by the company's officers.' (The Russia Corporate Governance Manual, 2004). Monitoring management performance, because of the accountability principle, might make it possible to increase corporate performance. The corporate governance encourages

board and directors rustle for the same purpose together whatever the company's goal, for example board of management valuation. The corporate governance codes suggest the evaluation of the board members' performances together and individually. So the board can make more contribution to the success of the company. Likewise, the executive officers should be also evaluated by the board systematically. This system does not only provide realistic, clear and measurable goals for the corporate management, but also make it necessary to monitor the performance continuously.

1.3.4 Prevention of Lappage and Sustainability

Prevention of lappage plays an important role to make the company carry on its successful performance in the long run. Otherwise, it will damage the relationship with the interest groups who provide the financial resources for the economic efficiency and then the conditions that provided the corporate efficiency will suffer. For example, if the management does not care about the investors' benefits, the company will not be able find the financial resources that are need or will settle for the new resources with high cost. Likewise, if the corporate strategy threatens the stakeholders' benefits, production efficiency will suffer. Yu (2004) draw an attention to this issue and indicates that 'Controlling minority insiders can potentially expropriate outside investors by diverting resources for their private benefit. Alternatively, managers can have the chance to increase their future wealth in proportion to their claims, by investing resources within the firm in profitable projects.'

Bocean and Barbu (2007) indicate that 'the corporate governance framework should recognize the rights of stakeholders as established by law and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises.'

Corporate governance codes emphasize that stakeholders' benefits must be considered while the decisions are being made, present the tools that are required for it and make different benefits reflect to the corporate strategy.

1.3.5 Mergers and Acquisitions

Nowadays, consolidation desire, which was brought up by increasing conditions of competition, is one of the reasons that make corporate governance concept very important for companies. Mergers and acquisitions are becoming to carry more weight than they used to be, thus they cause an essential change in transaction issues. After mergers, boards which have more formal process and operations have a significant influence on the new company.

Besides, firms may not have cut and dried issues because of their long run relationships but they have to make every issue formal due to accountability principle of corporate governance. To give an example at this point; election of board, creation of annual operation plan, development of performance monitoring methods etc.

1.4 OWNERSHIP STRUCTURE

The relationship between ownership structure and firm performance is one of the most important issues in the finance literature. Distribution of equity can be defined as ownership structure by including the votes and capital and the identity of the equity owners. Lee (2009) indicates that ownership structure generally refers to the allocation of equity (ownership concentration) and the identity of the equity owners. Jensen and Meckling have concluded in their studies that the value of a firm depends on the ownership structure. Since there is a link between the ownership structure and corporate governance, ownership structure can have both positive and negative effects on corporate governance.

Gürsoy and Aydoğan (1998) defines Turkish companies as highly concentrated, family owned firms attached to a group of companies generally owned by the same family or a group of families. The group usually includes a bank, which does not have significant equity ownership in member firms. Although professional managers

contribute to these companies, family members are also highly actively involved in strategic as well as daily decisions.

Yu (2004) highlights the importance of ownership structure on firm value and indicates that potential conflicts of interest between insiders (controlling shareholders and managers) and outsiders (investors) are central to the analysis of the modern corporation in which insiders have less than full ownership. ‘These analyses suggest that the firm’s ownership structure is a primary determinant of the extent of agency problems between controlling insiders and outsiders (Jensen and Meckling, 1976).’ (Yu, 2004).

The corporate governance varies according to the ownership structure of the corporate sector. Ownership structure can be defined as the governance mechanism. Highly concentrated ownership structure has an advantage of having a strong leadership and cohesive management team formed by controlled members. However, in companies dominated by only one family, those family members have an intention to grant the right of governance over the company for the benefit of their own interests and not to take into consideration the benefits of minority shareholders.

Finance literature presents several findings indicated that large shareholders structure may play an active and effective role in corporate governance. ‘In Germany, for example, Franks and Mayer (1994) found that large shareholders are associated with higher turnover of directors. Gorton and Schmid (1996) documented that block holdings by banks improve companies’ performance. In Japan, Kaplan and Minton (1994) found that companies with large shareholders are more likely to replace managers in response to poor performance than firms without them.’ (Yau, 2007).

In his study, Yau (2007) indicates that ‘Jensen and Meckling (1976) proposed that as managerial ownership increases the owner-manager’s interest converges with shareholders. Therefore, there is an increasing incentive for the owner-manager to maximize the value of the firms as managerial ownership increases. It may be effective to control the manager incentives by being large.’

In order to remove the deficiencies in corporate governance, different mechanisms can be applied. Corporate governance mechanisms can be divided as internal and external. Cvelbar and Mihalic (2007) defined internal mechanisms as they operate through the Board of Directors and ownership structure, while external mechanisms refer to the external market for corporate control and the legal system. They also refer to Becht et al. (2000) who identify five alternative mechanisms of corporate governance: the concentration and identity of owners, hostile takeovers and proxy voting, the delegation and concentration of control in the Board of Directors, the alignment of managerial interests with investors through executive compensation contracts and the clearly defined fiduciary duty of the Chief Executive Officer. In their study, they also mentioned about the another research of Agrawal and Knoeber (1996) who propose seven corporate governance mechanisms: insider shareholdings, institutional shareholdings, shareholding by block-holders, a proportion of outsiders on the Board of Directors, debt financing, an external labor market for managers and a market of corporate control.

All researchers describe ownership structure as an important corporate governance mechanism. This thesis investigates the relation between the ownership structure, corporate governance and the performance of companies. Portion of shares owned by a firm's most significant shareholders are included in this thesis in order to capture the effects of ownership structure on firm performance. Free float rate is used as a measure of corporate governance. In conclusion, I have not recorded any empirical evidence exploring the relation between ownership structure and company performance in the Turkish listed companies.

CHAPTER 2

EMPIRICAL ANALYSIS: EFFECTS OF OWNERSHIP STRUCTURE ON FIRM PERFORMANCE

2.1 LITERATURE REVIEW

The brief survey of prior empirical and theoretical studies is structured along two lines. First, research on the relationship between corporate governance and firm performance in Turkey is discussed. Second, the studies about the impact of corporate governance on firm performance in worldwide are summarized.

Tanrıöven, Küçükkaplan and Başçı (2006) used one way ANOVA test to analyze the relationship between ownership structures on bank performance of Turkish commercial banks listed on İstanbul Stock Exchange by considering the financial ratios. In their study, they also try to find out the effects of voting power of top manager in the board of directors on financial performance of banks by using the Independent Sample T Test. According to their study, banks are classified into three major ownership structures in Turkey as family banks, holding banks and widely held banks. They found that the family and holding banks' performance ratios do not differ from those of other banks based on the independent variables, but widely held banks' performance ratios are affected by the independent variables differently comparing to other banks.

Tezölmez and Gökşen (2006) analyzed the relationship between the ownership structure and the financial performance of international joint ventures in Turkey. They identify some variables used as performance indicator such as financial ratios, various financial returns to the local parent, and the degree of achievement of the local parent goals in establishing the international joint ventures. They conclude that there is a strong and positive relationship between the difference of the portions of the parent companies and the company's financial ratios and goal achievement performance.

Gürsoy (2006) formed a theoretical model in order to define the relationship between foreign shareholding and corporate governance system. He benefited from the

researches in the literature to describe a theoretical model about the foreign investor and corporate governance. In his study, he concluded that the corporate governance system is affected by the ownership structure, for example costs arising due to the conflicts between foreign shareholders, large shareholders and management. “Foreign shareholder have always an intention to minimize the additional costs and risks of investing in a foreign country, thus in parallel with the increasing number of foreign shareholders on companies, the change in the Turkish corporate governance culture is likely to be more apparent” (Gürsoy, 2006).

Büyükdereli (2007) analyzed the impact of ownership structure of real sector firms listed in İstanbul Stock Exchange on their financial performances. Financial ratios of 249 firms quoted at İstanbul Stock Exchange were calculated on financial statements prepared annually and a panel data was obtained. In his study, he decided to calculate Tobin’s Q as performance indicator of a firm and used as a dependent variable in his model. He used some dummy variables such as the portion of major shareholder, the portion of second major shareholder, foreign ownership and free float rate. He concluded that there is a positive relationship between the number of owners and Tobin’s Q and profit rates. Foreign ownership also affects the firm performance positively.

Serinkaya (2008) examined the effect of corporate governance practices on firm value for the manufacturing firms listed in Istanbul Stock Exchange in 2006 by using a multiple regression model. He applied multiple regression model in his study. As a result, he concluded that the number of board members and the growth of sales volume have positive effect on market to book ratio of the company. This ratio is also negatively affected in case of general manager is also a board member. Other variables related to the shares of corporate investors, leverage, and free float rate have no statistically significant effect on firm’s value.

Topçu (2007) analyzed the impact of corporate governance systems of listed companies in Istanbul Stock Exchange on the firm value. She applied a questionnaire to those companies. The questionnaire was applied to the board members, chief financial

officers, investor relations managers and professionals and other top managers of the companies. She tries to obtain some evidence to demonstrate the relationship between corporate governance implications and firm value. She supports her study based on the six main parts namely shareholder rights and transparency, financial transparency, board structure and responsibilities, stakeholder rights, rights and benefits of management and comments regarding the relation between corporate governance implications and firm value. Answers were analyzed and she concluded that there is a relationship between board structure and responsibilities and firm value. Other main headings have no any significant effect on firm value.

Yıldırım and Demirelli (2009) analyzed the impacts on the financial performances of the non-financial Turkish companies listed on Istanbul Stock Exchange by considering the capital structure and control power of the companies. The variables are determined as share of largest shareholder and general assembly control rates of the largest shareholder as an indicator of capital ownership and control structure. In order to determine the effects of these variables on return on asset, profitability of sales, return on equity, and the other financial performance measurement, Tobin's Q were regressed. In conclusion, there is a positive relationship between shares of the largest shareholder of the company ownership and control of power and profitability of assets, profitability of sales, profitability of equity capital have decreased, but Tobin q ratio.

Bauer, Guenster, and Otten (2003) investigate the relationship between corporate governance and firm value of 249 and 269 firms included in the FTSE Eurotop 300 in 2000 and 2001. The impact of good corporate governance systems on stock returns is analyzed by using regression analysis. They design a model by considering two groups, well-governed companies and poorly governed companies and they compare the financial performances of those two groups. They also used countries as dummy variable and the results for United Kingdom and the Eurozone markets are compared. They conclude that there is a positive relationship between firm value and corporate governance. Tobin's Q is used in order to determine the firm value in this study. But they find negative relationship between governance standards and financial

ratios such as return on equity and net profit margin which are assessed as performance indicator in this study.

Yu (2004) uses OLS equation and simultaneous equation regressions in order to analyze the relationship between ownership structure and firm value. He examines 98 Korean firms listed on Korea Stock Exchange from 1994 to 2000. The dependent variable is determined as Tobin's Q and as a result of the study he conclude that there is no any significant relationship between Tobin's Q and individual ownership whereas it is affected by firm member ownership.

Black, Love, and Rachinsky (2006) examined the impact of corporate governance of Russian companies on their market values over 1999-2004. They used OLS and fixed and random effects specifications to test the relationship. They specify Tobin's Q, market-to-sales and market-to-book ratios as performance measure in their model. They conclude that there is significant correlation between corporate governance and market value in OLS and fixed effects regression. Coefficients and significance levels also differ from each other in OLS and fixed effects specifications.

Black (2001) examined the impact of corporate governance principles of 21 Russian firms on their market value. Russian investment bank publishes the corporate governance rankings and in this study he used fall 1999 corporate governance rankings. The other Russian investment bank also determines the value ratio of actual market capitalization to potential Western market capitalization. As a result he found that there is a strong relationship between corporate governance rankings and value ratio.

Garay and Gonzales (2008) examined the relationship between corporate governance and firm value by using the firm-level data for publicly held Venezuelan companies listed on Caracas Stock Exchange for the year of 2004. They constructed a corporate governance index by preparing a questionnaire with 17 questions. They used three dependent variables: Dividend payout ratio, price-to-book ratio, and Tobin's Q. The independent variable is corporate governance index. Control variables including company size, return on asset, EBIT, and leverage are also determined by them. They

conclude that there is a positive and strong relationship between corporate governance index and performance measurements.

In the light of the previous studies investigated the relationship between corporate governance and ownership structure, and firm performance in Turkey and other countries, we can conclude that the companies that applies corporate governance principles comparatively better than the other companies have higher stock exchange market performance and return on equity ratio in general. For the publicly held companies, higher free float rate may lead the companies apply corporate governance principles better than the other companies with lower free float rate. Good management inspires confidence to creditors and due to this confidence those companies gain more opportunity to benefit from outside financing by both going into debt and issue shares. (Gürbüz and Ergincan, 2004)

2.2 DATA

The data set consists of annual basis variables of non-financial firms listed on the Istanbul Stock Exchange (ISE) for the sample period covers the fiscal years from 1999 to 2008. The financial statements including statement of financial position and income statement are taken from annual basis audit reports of non-financial firms obtained from the official website of ISE, (<http://www.imkb.gov.tr>). The stock price information and dividend information are also published in the website of ISE in bulletin data section and companies' data section as dividend of companies traded on the stock market, respectively. The financial ratios are calculated by using the balance sheet and income statement items and considered in the determination of dependent and independent variables. Footnotes of these annual reports give information about the ownership structure of the companies.

Some variables cannot be calculated for some firms due to missing data and those firms were omitted from the sample. The empirical investigation is based on comprehensive firm-level panel data that consist of about 1635 observations over the 1999–2008 periods.

The table below represents the dependent and independent variables used in this study and shows the formulas and symbols as used in the regression model:

Table 1: Dependent, Independent, and Dummy Variables

Variables			
	Variables	Calculation	Symbol
Dependent Variables	Tobin's Q	$(\text{Total liability} - \text{Shareholders Equity} + \text{Market Value of Firm}) / \text{Total Assets}$	Q
	Return on Asset	$\text{Net Income} / \text{Total Assets}$	ROA
	Return on Equity	$\text{Net Income} / \text{Shareholders' Equity}$	ROE
Independent Variables	First Major Shareholder	$\text{First Major Shareholder's Equity} / \text{Total Shareholders' Equity}$	FMS
	Second Major Shareholder	$\text{Second Major Shareholder's Equity} / \text{Total Shareholders' Equity}$	SMS
	Free Float Rate	$\text{Public Capital} / \text{Total Shareholders' Equity}$	FREE
	Debt-to-equity ratio	$\text{Total Liabilities} / \text{Shareholders' Equity}$	LEV
	Debt ratio	$\text{Total Liabilities} / \text{Total Assets}$	DEBT
	Total Assets	$\text{Logarithm of Total Assets}$	ASSET
	Dividend Payout Ratio	$\text{Dividends} / \text{Net Income}$	PAYOUT
Dummy Variables	Crisis Year 2001	1 for the year of 2001, 0 otherwise	D2001
	Crisis Year 2008	1 for the year of 2008, 0 otherwise	D2008

2.2.1 Dependent Variables

2.2.1.1 Tobin's Q

Canbař, Dođukanlı and Düzakın (2004) describe Tobin's Q as an important and widely accepted measure of firms' performance in the finance literature and define as the ratio of market value of assets divided by replacement cost of assets. Tobin's Q ratio was developed by James Tobin in 1969 and it is used as a measure of firm value in the literature. Higher Tobin's Q value means higher firm value. In case of Tobin's Q of a company is bigger than 1 and other firms' Q values, it is an indicator of an ability to gain more profit than the other firms.

The ratio is calculated by the formula given below:

Tobin's Q: $(\text{Total liability} - \text{Shareholders Equity} + \text{Market Value of Firm}) / \text{Total Assets}$

2.2.1.2 Return on Asset

This ratio is another performance measure of the company. It is an indicator of how profitable a company is relative to its total assets. Korkmaz, Uyguntürk, Gökbulut, and Güğerçin (2008) used return on asset as an indicator of profitability in their study analyzing the financial performance and return on assets of ISE listed cement firms and they explained that this ratio shows the efficiency of management at using its assets to generate earnings.

The ratio is calculated by the formula given below:

ROA: $\text{Net Income} / \text{Total Assets}$

2.2.1.3 Return on Equity

This ratio is another performance indicator of firms. "Many studies take return on equity into account because it is a key measure for investors to evaluate the success

of an investment. Return on equity is calculated by dividing the earnings available for common stockholders by the average equity of a company” (Brealey, Myers, 2000). Return on equity is a measurement of firm’s efficiency at generating profits from every unit of shareholders' equity.

Return on equity is calculated as:

ROE: Net Income / Shareholders' Equity

2.2.2 Independent Variables

2.2.2.1 First Major Shareholder

It is expected that the stock proportion of the first major shareholder holds would have a significant impact on firm’s performance. Due to the voting power in board of directors and management decisions, company financial statements may have affected by this variable.

According to the OECD study about corporate governance in Turkey, “corporate sector in Turkey is dominated by family-controlled, complex financial-industrial company groups, usually comprising both publicly held and privately held companies. There is often a high degree of cross-ownership within the groups”. Board structure and decision-making structure are shaped by the ownership structure of the companies. Controlling shareholders play a leading role in company management. For that reason, it is essential to consider this variable in the study.

Ownership structure of the companies used in this study is represented by this independent variable.

2.2.2.2 Second Major Shareholder

Ownership and control structure can be shaped by two major shareholders and in cases of second major shareholder have also significant portion of equity and have

major voting power in board decisions and daily management, the importance of this variable has come to the attention. The proportion of the shareholder holds the second majority is also taken into consideration as an independent variable in order to determine the effects of ownership structure on firms' performance.

The other indicator of ownership structure is represented by the portion of second major shareholder.

2.2.2.3 Free Float Rate

The free float of a public company is the proportion of shares that are not held by large owners. Companies have intention to benefit from the potential advantages of being public company such as flotation, spread of risk, and wide dispersion of ownership. The ratio is also included in the analysis in order to assess potential effects on firms' performance. The effects of corporate governance are explained by this variable.

2.2.2.4 Financial Leverage Ratios

2.2.2.4.1 Debt-to-Equity Ratio

This ratio presents the company's methods of financing its financial obligations. It shows the proportion of debt and equity used by the company in order to finance assets. The firms with high debt to equity ratio are vulnerable to business downturns.

This ratio can give a clear idea on the capital structures of companies. If the ratio is greater than 1, it means that assets are financed through debt and this indicates a risky investment decision when the interest rates increase. But for the companies with sound corporate governance and low operation risks, higher debt-to-equity ratios may be assessed as less risky than other firms.

The ratio is calculated by the formula given below:

Leverage: $\text{Total Liabilities} / \text{Shareholders' Equity}$

2.2.2.4.2 Debt Ratio (Debt-to-Assets Ratio)

This ratio measures the proportion of company's liabilities to total assets. "If the ratio is less than one, most of the company's assets are financed through equity. If the ratio is greater than one, most of the company's assets are financed through debt. Companies with high debt/asset ratios are said to be 'highly leveraged,' and could be in danger if creditors start to demand repayment of debt" (<http://www.investorwords.com>). Going into debt has several positive and negative effects on company's performance. For that reason companies should decide the optimum borrowing levels by using debt ratios.

Debt ratio is calculated as below:

Debt Ratio: $\text{Total Liabilities} / \text{Total Assets}$

2.2.2.5 Total Assets

One of the important indicators of growth is total assets. Many studies find a positive relationship between the growth of firm and ownership structure. Marsh (1982), Titman and Wessels (1988), and Michaelas (1999) report that there is positive relationship between the growth of the company and capital structure. This relationship can be explained by the fact that the big firms have stable income comparing with the small firms, there is more possibility for the firms with large size to provide funds from capital markets and they can get into debt with lower interest rates. The studies of Noe (1988), Poitevin (1989), Haris anf Raviv (1990) and Stulz (1990) demonstrate that when the firms grow up, their tendency for going into debt have also increased. (Korkmaz et al., 2007) The growth of the firm is symbolized by the logarithm of total asset in this study.

2.2.2.6 Dividend Payout Ratio

This ratio shows us the portion of the profits to be paid to the shareholder. “Ownership structures may affect the willingness of the firms to pay high or low level of dividends. For example: the family owned firms with good growth opportunities are reluctant to pay high dividends, whilst the state owned firms pay the higher amount of dividends” (Kırkulak, 2009).

The ratio is calculated by the formula given below:

Dividend Payout Ratio: Dividends / Net Income

2.2.3 Dummy Variables

Turkish economy was hit by two financial crises occurred in 2001 and 2008 during the sampling period of this study.

Turkish economy was trying to cope with high inflation, current account deficit, budget deficit and economic shrinkage in the late 1999. The first crisis occurred due to the failure of exchange rate based stabilization program applied according to the agreement made with International Monetary Fund (IMF) in the second half of November 2000. At the end of December 2000, the average interest rates have reached to extremely high levels comparing to the previous month of 2000 and Turkish Lira has also devaluated against the other currencies. After the announcement of political crisis between the president of republic and prime minister on February, 2001, financial markets have affected from this economic insecurity. Then the exchange rate system collapsed and the floating exchange rate system implemented.

The second crisis occurred due to collapse of US mortgage market and investment banking in 2008. This crisis has some effects on Turkish economy due to the financial globalization. The export had declined. Due to the high level of external debt and a large current account deficit, Turkey is affected by this global crisis. Investments and private external capital flows had also declined. Turkish banking sector had been affected less than other countries by this global crisis due to the development

of Turkish banking sector after 2001 economic crisis. But stock exchanges in worldwide lost in value. The reaction of Istanbul Stock Exchange to the crisis had been parallel to the other stock exchanges. Turkish Lira devaluated and interest rates were declined during this period.

2.2.3.1 Crisis Year 2001

During the crisis period, foreign investors dropped out of portfolio investment and Istanbul Stock Exchange index declined sharply. Decline in foreign investments due to the economic instability during this period prevented by the reliability of good corporate governance applications and expected high profitability of the companies. The number of initial public offerings also declined. After the crisis occurred in 2001, ISE-100 index has lost in value about 51%. The companies operating in automotive, food and beverage, consumer goods, electronic and telecommunication, and retail business sectors are significantly affected by the crisis. The companies have decreased their capital investments. The production of the companies has decreased by 8.5% due to the decreased demand of consumers.

This variable is used as a dummy variable in order to see the effects of financial crisis occurred in 2001 on company financial statements.

2.2.3.2 Crisis Year 2008

The effects of global crisis emerged in 2008 on non-financial firms have been reflected to the financial statements of the companies in the third quarter of the fiscal year 2008. Only 36% of the ISE listed companies have increased their revenues comparing to the same period of previous year and 2% of listed firms have kept their revenues at the same level. Revenues of the remaining part of the firms have decreased. In the first year of crisis 47 listed firms have gained profit.

As a result of the financial crisis and corporate bankruptcies, financial authorities increased their attention to follow and monitor the risks faced by both financial and non-financial firms. The evaluation of firm-specific and industry-specific risks may lead to conflict of interest between different interest groups.

To test the relationship between company performance and ownership structure in 2008 crisis period, this dummy variable is used in the analysis.

2.3 METHODOLOGY

$$Q_t = \alpha_0 + \alpha_1 FMS_t + \alpha_2 SMS_t + \alpha_3 FREE_t + \alpha_4 LEV_t + \alpha_5 DEBT_t + \alpha_6 ASSET_t + \alpha_7 PAYOUT_t + \alpha_8 Crisis\ Year\ Dummy_t + \varepsilon_t \quad (1)$$

$$ROA_t = \alpha_0 + \alpha_1 FMS_t + \alpha_2 SMS_t + \alpha_3 FREE_t + \alpha_4 LEV_t + \alpha_5 DEBT_t + \alpha_6 ASSET_t + \alpha_7 PAYOUT_t + \alpha_8 Crisis\ Year\ Dummy_t + \varepsilon_t \quad (2)$$

$$ROE_t = \alpha_0 + \alpha_1 FMS_t + \alpha_2 SMS_t + \alpha_3 FREE_t + \alpha_4 LEV_t + \alpha_5 DEBT_t + \alpha_6 ASSET_t + \alpha_7 PAYOUT_t + \alpha_8 Crisis\ Year\ Dummy_t + \varepsilon_t \quad (3)$$

The equations above give three different regression models in order to examine the effects of independent variables on Tobin's Q, ROA and ROE. Detailed explanations for the dependent and independent variables are given in data section.

This study relies on cross-sectional data.

Ordinary Least Square (OLS) regression model, fixed effects regression model and random effects regression model are individually run for each dependent variable by both using dummy variables and without any dummy variables in order to expand the study in the light of financial crisis emerged in 2001 and in 2008 in Turkey.

Panel data, also called longitudinal data or cross-sectional time series data, are data in which the behaviors of companies are observed across time.

Fixed effects regression is the model to use when you want to control for omitted variables that differ between cases but are constant over time. It lets you use the changes in the variables over time to estimate the effects of the independent variables on your dependent variable, and is the main technique used for analysis of panel data. (Stock and Watson, 2003)

“If you have reason to believe that some omitted variables may be constant over time but vary between cases, and others may be fixed between cases but vary over time, then you can include both types by using random effects” (Stock and Watson, 2003).

“Fixed effects arise when the levels of an effect constitute the entire population about which you are interested. An effect is classified as a random effect when you want to make inferences on an entire population, and the levels in your experiment represent only a sample from that population.” (<http://www.uc.edu/>)

E views Econometric Package is used in this analysis.

Correlation matrix including all dependent and independent variables is developed by using E-Views Econometric Package in order to determine the correlation degrees between those variables. The Table 2 shows the correlation matrix:

Table 2: Correlation Matrix

	Q	ROA	ROE	FMS	SMS	FREE	LEV	DEBT	LOG_ASSET	PAYOUT	D2001	D2008
Q	1	-0.45199	-0.01498	0.05123	-0.04183	-0.05409	0.29923	0.99994	-0.04940	-0.23770	0.13497	-0.02096
ROA	-0.45199	1	0.35617	0.09060	0.01830	-0.08697	-0.03686	-0.45286	0.19308	0.37663	-0.08422	-0.07603
ROE	-0.01498	0.35617	1	-0.01629	0.04970	-0.03533	-0.52398	-0.01550	0.08969	0.19686	0.01198	-0.10585
FMS	0.05123	0.09060	-0.01629	1	-0.41218	-0.55841	0.08766	0.05009	0.14482	0.04601	-0.02399	0.04174
SMS	-0.04183	0.01830	0.04970	-0.41218	1	-0.33658	-0.04253	-0.04104	0.06227	0.06583	0.02260	-0.03253
FREE	-0.05409	-0.08697	-0.03533	-0.55841	-0.33658	1	-0.04752	-0.05356	-0.15343	-0.05137	-0.00743	0.00480
LEV	0.29923	-0.03686	-0.52398	0.08766	-0.04253	-0.04752	1	0.29937	0.02290	-0.12527	0.06079	0.00499
DEBT	0.99994	-0.45286	-0.01550	0.05009	-0.04104	-0.05356	0.29937	1	-0.04799	-0.23829	0.13465	-0.02055
LOG_ASSET	-0.04940	0.19308	0.08969	0.14482	0.06227	-0.15343	0.02290	-0.04799	1	0.19583	-0.12360	0.16275
PAYOUT	-0.23770	0.37663	0.19686	0.04601	0.06583	-0.05137	-0.12527	-0.23829	0.19583	1	-0.00399	-0.01759
D2001	0.13497	-0.08422	0.01198	-0.02399	0.02260	-0.00743	0.06079	0.13465	-0.12360	-0.00399	1	-0.10772
D2008	-0.02096	-0.07603	-0.10585	0.04174	-0.03253	0.00480	0.00499	-0.02055	0.16275	-0.01759	-0.10772	1

Table 3: Regression Results for Tobin's Q including Debt Ratio

	Panel A: OLS Regression Results		Panel B: Fixed Effects Regression Results		Panel C: Random Effects Regression Results	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Constant	-0.999 (-2787.858)	-0.999 (-2782.793)	-0.999 (-1454.891)	-0.999 (-1373.544)	-0.999 (-1696.069)	-1.000 (-1686.150)
FMS	0.000 ^b (2.352)	0.000 ^b (2.417)	-0.000 (-0.582)	0.000 (0.155)	0.000 (0.876)	0.000 (1.117)
SMS	-0.000 ^a (-3.076)	-0.000 ^a (-3.062)	0.000 (0.065)	0.000 (0.901)	-0.000 (-1.353)	-0.000 (-1.206)
FREE	-0.000 ^b (-2.302)	-0.000 ^b (-2.219)	-0.000 ^b (-2.344)	-0.000 (-1.220)	-0.000 ^b (-2.234)	-0.000 (-1.381)
LEV	-0.000 ^b (-2.170)	-0.000 ^b (-2.155)	-0.000 (-1.139)	-0.000 (-1.241)	-0.000 ^c (-1.936)	-0.000 ^b (-2.250)
DEBT	2.000 (6985.909)	2.000 (6395.574)	2.000 (3698.997)	2.000 (2879.217)	2.000 (5575.972)	2.000 (5216.608)
LOG_ASSET_	-0.000 ^a (-3.887)	-0.000 ^a (-3.771)	-0.000 ^a (-3.349)	0.000 (0.242)	-0.000 ^c (-1.860)	-0.000 (-1.124)
PAYOUT	0.001 ^c (1.951)	0.001 ^c (1.907)	0.001 ^b (2.330)	0.001 ^b (2.231)	0.001 ^c (1.892)	0.001 ^c (1.805)
D2001		0.000 (0.752)		0.000 (1.251)		0.000 (1.383)
D2008		-0.001 ^a (-3.912)		-0.001 (-1.603)		-0.001 ^b (-2.098)
F-Statistics	2124180	1653434	107295	106426	1518995	1181327
Adjusted R²	0.9999	0.9999	0.9999	0.9999	0.9998	0.9998
# of Observations	1635	1635	1635	1635	1635	1635

^a represents significance at 1% level, ^b represents significance at 5% level, ^c represents significance at 10% level. T-statistics are given in parenthesis. The dependent variable is Tobin's Q. Panel A shows the OLS regression results, Panel B shows the fixed effects regression results and Panel C shows the random effects regression results. The independent variables are logarithm first major shareholder (FMS), second major shareholder (SMS), free float rate (FREE), leverage (LEV), debt to equity ratio (DEBT), logarithm of assets (LOG_ASSET), dividend payout ratio (PAYOUT), (DIV/NI), 2001 crisis dummy variable (D2001), 2008 crisis dummy variable (D2008). Model 1 represents the results of first regression without dummy variables. Model 2 represents the results of second regression with dummy variables.

Table 3 shows the OLS, fixed effects and random effects regression results, respectively, in which Model 1 represents the model with no any dummy variables and Model 2 represents the model including dummy variables, for the dependent variable Tobin's Q. Debt ratio is included in all regressions in order to show the high impact on Tobin's Q. All regression results show that 99.99% of the variation in Tobin's Q is explained by the change in independent variables due to the effects of debt ratio. Debt ratio is highly correlated with Tobin's Q and for that reason debt ratio is omitted from the model including the dependent variable of Tobin's Q in order to eliminate the effects of this variable. The final regression models are represented below:

$$Q_t = \alpha_0 + \alpha_1 FMS_t + \alpha_2 SMS_t + \alpha_3 FREE_t + \alpha_4 LEV_t + \alpha_5 ASSET_t + \alpha_6 PAYOUT_t + \alpha_7 Crisis\ Year\ Dummy_t + \varepsilon_t \quad (1)$$

$$ROA_t = \alpha_0 + \alpha_1 FMS_t + \alpha_2 SMS_t + \alpha_3 FREE_t + \alpha_4 LEV_t + \alpha_5 DEBT_t + \alpha_6 ASSET_t + \alpha_7 PAYOUT_t + \alpha_8 Crisis\ Year\ Dummy_t + \varepsilon_t \quad (2)$$

$$ROE_t = \alpha_0 + \alpha_1 FMS_t + \alpha_2 SMS_t + \alpha_3 FREE_t + \alpha_4 LEV_t + \alpha_5 DEBT_t + \alpha_6 ASSET_t + \alpha_7 PAYOUT_t + \alpha_8 Crisis\ Year\ Dummy_t + \varepsilon_t \quad (3)$$

2.4 EMPIRICAL RESULTS

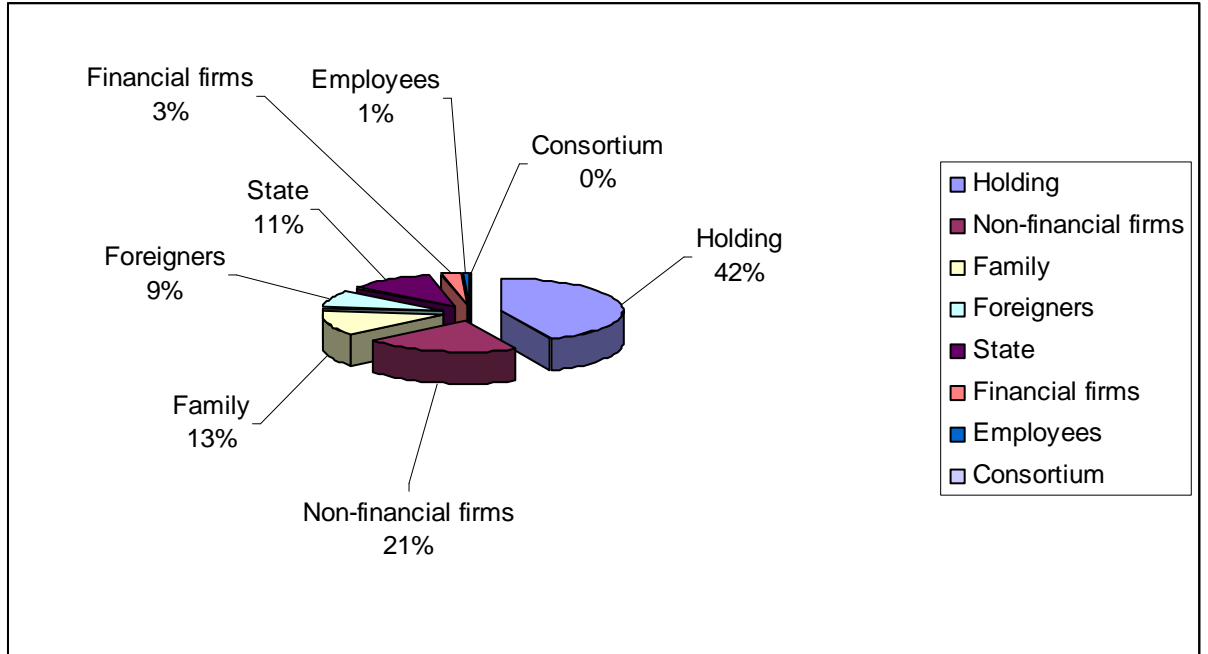
Table 4 provides ownership structures of the ISE companies included in the analysis covers the period between 1999 and 2008.

Table 4: Ownership Structure

Major Shareholder	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Holding	61	63	59	58	68	66	68	70	67	60	640
Non-financial firms	29	38	42	37	44	42	43	38	41	41	395
Family	18	26	27	25	26	28	30	28	24	24	256
Foreigners	12	12	10	12	15	17	15	16	18	17	144
State	16	15	16	16	13	15	14	13	12	11	141
Financial firms	4	3	5	5	7	8	6	3	3	3	47
Employees	1	1	1	1	1	1	1	1	1	1	10
Consortium	0	1	1	0	0	0	0	0	0	0	2
Total	141	159	161	154	174	177	177	169	166	157	1635

The Figure 1 below represents the distribution of the companies on ownership structure basis:

Figure 1: Proportional Representation of Major Shareholders



The findings show that ISE firms are mainly owned by holding companies in 640 observations with the rate of 42% of total observations. The second leading ownership structure observed in the analysis is comprised of non-financial firms in 395 observations and 21% of total sampling belongs to non-financial firms. Family owned firms contribute to the analysis with the rate of 13% and 256 observations. Foreigners have the largest ownership in 144 observations. State is the major shareholder in 141 observations and includes the firms operating in cement, chemical, defense, transportation, food and beverage, and metal and machinery industries. 3% of the observations are comprised of the companies in which financial firms own the largest share. Kardemir Karabük Demir Çelik Sanayi ve Ticaret A.Ş. (KRDMD) is the sole firm that the ownership of the employees composes the majority of shares. Petrol Ofisi was owned by a consortium of İş Bankası and Doğan Holding in the years of 2000 and 2001.

The Table 5 represents the sub-industries of the firms used in the study covers the years between 1999 and 2008:

Table 5: Distribution of sub-industries from 1999 through 2008

Industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Textile	24	26	26	26	26	28	27	23	22	22	250
Cement	20	24	24	22	25	25	25	25	25	25	240
Metallic commodity	23	23	23	20	22	22	22	21	19	19	214
Food & Beverage	21	22	20	19	18	20	22	20	20	19	201
Chemical	17	20	19	18	21	21	21	21	21	21	200
Paper	8	7	11	11	12	12	11	11	11	9	103
Metal & Machinery	8	9	9	8	9	9	9	9	10	8	88
Hotels and Restaurants	4	6	7	6	7	7	7	7	7	6	64
Information industry	2	4	4	5	5	5	5	5	5	5	45
Transportation	3	3	3	4	4	4	4	4	3	3	35
Electricity	0	2	3	3	3	3	3	3	3	1	24
Retail	2	2	2	2	3	2	3	1	1	1	19
Wholesale and Retail Trade	2	2	2	2	2	2	2	2	2	1	19
Forestry products	2	2	1	1	2	2	1	2	2	2	17
Energy	0	0	0	0	2	2	2	2	2	2	12
Mining	1	1	1	1	1	1	1	1	1	1	10
Defense	1	1	1	1	1	1	1	1	1	1	10
Construction	0	1	1	1	1	1	1	1	1	1	9
Health	0	1	1	1	1	1	1	1	1	1	9
Glass	0	0	0	0	1	1	1	1	1	1	6
Aluminum	0	0	0	0	1	1	1	1	1	1	6
Piston	0	0	0	0	1	1	1	1	1	1	6
Telecommunication	0	0	0	0	1	1	1	1	1	1	6
Leather	0	0	0	0	1	1	1	1	1	1	6
Tourism	0	0	0	0	1	1	1	1	1	1	6
Other	3	3	3	3	3	3	3	3	3	3	30
Total	141	159	161	154	174	177	177	169	166	157	1635

As the Table 5 shows that ISE companies mainly operate in textile industry, cement industry, metallic commodities, food & beverage, and chemical industry with 250, 240, 214, 201, and 200 observations in the sample, respectively. The percentages of first five sub-industries in sample data are 16%, 15%, 13%, 13%, and 12%, respectively.

According to the research published on the website of Borsa Yatırımcıları Derneği, the most profitable sectors are determined as financial sector including banks, investment companies, insurance companies, factoring companies, and etc. which are not included in this study, communication sector including only one firm namely Turkcell (TCELL), wholesale companies namely Intema İnşaat ve Tesis Malzemeleri Yatırım ve Pazarlama A.Ş. (INTEM) and Sanko Pazarlama İthalat ve İhracat A.Ş. (SANKO), and food and beverage sector including the leading and the most well known brands in Turkey such as Anadolu Efes (AEFES), Coca Cola (COLA), Ülker (ULKER), Tuborg (TBORG), Pınar Süt (PNSUT).

The common characteristic of the most profitable firms is being owned by holding companies. The major shareholder of Turkcell is Turkcell Holding, similarly Intema is owned by Eczacıbaşı Holding, Sanko is owned by Sanko Holding. Yazıcılar Holding holds the majority ownership in Anadolu Efes. Ülker and Pınar Süt are owned by Yıldız Holding and Yaşar Holding, respectively.

It should be noted that foreign ownership is also an indicator of the profitability in such companies namely Coca Cola and Tuborg. Due to the composition of the ownership structure of the listed firms is shaped by the mergers and acquisitions, foreign ownership started to increase when the deep effects of 2001 crisis have ended in 2003.

The detailed presentation of sub-industries and major shareholder divisions in which those two descriptive groups evaluated together is also given in the Table 6:

Table 6: Sub-industries on Major Shareholders Basis

	Holding	Non- Financial Firms	Family	Foreigners	State	Financial Firms	Employee	Consortium	Total
Textile	82	68	95	-	-	5	-	-	250
Cement	57	81	27	21	49	5	-	-	240
Metallic commodity	117	51	10	36	-	-	-	-	214
Food & Beverage	80	41	34	26	16	4	-	-	201
Chemical	61	35	10	29	49	14	-	2	200
Paper	67	22	10	4	-	-	-	-	103
Metal & Machinery	22	41	-	2	7	6	10	-	88
Hotels and Restaurants	43	10	11	-	-	-	-	-	64
Information industry	19	-	17	9	-	-	-	-	45
Transportation	10	5	-	10	10	-	-	-	35
Electricity	13	9	-	-	-	2	-	-	24
Retail	6	2	-	6	-	5	-	-	19
Wholesale and Retail Trade	11	7	-	1	-	-	-	-	19
Forestry products	3	11	3	-	-	-	-	-	17
Energy	-	12	-	-	-	-	-	-	12
Mining	10	-	-	-	-	-	-	-	10
Defense	-	-	-	-	10	-	-	-	10
Construction	-	-	9	-	-	-	-	-	9
Health	1	-	8	-	-	-	-	-	9
Glass	-	-	-	-	-	6	-	-	6
Aluminum	6	-	-	-	-	-	-	-	6
Piston	6	-	-	-	-	-	-	-	6
Telecommunication	6	-	-	-	-	-	-	-	6
Leather	-	-	6	-	-	-	-	-	6
Tourism	-	-	6	-	-	-	-	-	6
Other	20	-	10	-	-	-	-	-	30
Total	640	395	256	144	141	47	10	2	1635

Holding companies operate mainly in metallic commodity industry including the firms produce white goods, textile industry, and food and beverage industry. Holding companies demonstrate the highly concentrated ownership in most of the industries with the average lead share of 47.66 % in the period covers the years of 1999 and 2008. The lead shares in textile industry belong to family companies. Foreign companies are involved in metallic commodities, chemical, and food and beverage industries in general. State owned companies operate mainly in cement and chemical industries.

2.4.1 Regression Analysis

Table 7, 8, and 9 provide regression results of companies' ownership structures and financial ratios over companies' financial performance indicators respectively for Tobin's Q, return on asset, and return on equity as explained in previous sections.

2.4.1.1 Regression Analysis for Tobin's Q

Table 7 shows the OLS, fixed effects and random effects regression results, respectively, in which Model 1 represents the model with no any dummy variables and Model 2 represents the model including dummy variables, for the dependent variable Tobin's Q. As mentioned in data section, debt ratio is omitted from the model due to the high correlation of this ratio with Tobin's Q in order to eliminate the effects of this variable.

Table 7: Regression Results for Tobin's Q

	Panel A: OLS Regression Results		Panel B: Fixed Effects Regression Results		Panel C: Random Effects Regression Results	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Constant	0.224 (1.591)	0.109 (-0.777)	1.303 ^a (3.056)	1.144 ^b (2.272)	1.180 ^a (3.172)	1.022 ^b (2.327)
FMS	-0.001 (-1.114)	-0.001 (-1.035)	-0.0002 (-0.124)	-0.0004 (-0.226)	-0.001 (-0.332)	-0.001 (-0.366)
SMS	-0.003 ^b (-2.042)	-0.003 ^b (-2.086)	-0.001 (-0.259)	-0.001 (-0.282)	-0.001 (-0.448)	-0.001 (-0.457)
FREE	-0.003 ^b (-2.461)	-0.003 ^b (-2.371)	-0.002 (-1.544)	-0.002 (-1.551)	-0.002 ^b (-2.049)	-0.002 ^c (-1.919)
LEV	0.0771 ^a (4.039)	0.075 ^a (3.944)	0.037 (1.453)	0.034 (1.359)	0.038 (1.565)	0.035 (1.467)
LOG_ASSET_	-0.014 (-1.016)	-0.003 (-0.183)	-0.159 ^a (-3.604)	-0.141 ^a (-2.863)	-0.135 ^a (-3.791)	-0.118 ^a (-2.970)
PAYOUT	-0.307 ^a (-7.799)	-0.313 ^a (-1.79)	-0.13 ^a (-3.687)	-0.125 ^a (-4.128)	-0.154 ^a (-4.328)	-0.151 ^a (-4.644)
D2001		0.185 ^a (4.375)		0.187 (4.858)		0.188 ^a (4.726)
D2008		-0.02 (-0.489)		0.061 (1.898)		0.050 (1.210)
F-Statistics	42.531	35.616	17.230	18.202	26.110	28.384
Adjusted R²	0.132	0.145	0.664	0.679	0.084	0.118
# of Observations	1635	1635	1635	1635	1635	1635

^a represents the significance at 1% level, ^b represents the significance at 5% level, ^c represent the significance at 10% level. T-statistics are given in parenthesis. The dependent variable is Tobin's Q. Panel A shows the OLS regression results, Panel B shows the fixed effects regression results and Panel C shows the random effects regression results. The independent variables are logarithm first major shareholder (FMS), second major shareholder (SMS), free float rate (FREE), leverage (LEV), logarithm of assets (LOG_ASSET), dividend payout ratio (PAYOUT), (DIV/N), 2001 crisis dummy variable (D2001), 2008 crisis dummy variable (D2008). Model 1 represents the results of first regression without dummy variables. Model 2 represents the results of second regression with dummy variables.

OLS regression results show that 13% of the variation in Tobin's Q is explained by the change in independent variables. OLS results report that there is negative and statistically significant relationship between independent variables second major shareholder, free float rate, and payout ratio and Tobin's Q. There is positive and significant relationship between leverage ratio and Tobin's Q. This regression also reports that the relationship between lead share of the major shareholder and logarithms of assets and Tobin's Q is not statistically significant.

OLS regression is insufficient for the models including time series. It is expected to obtain more meaningful results by implementing panel data regression analysis.

Fixed effects regression result show that 66% of changes in Tobin's Q is explained by independent variables in the model. The findings present that there is only two independent variables logarithm of assets and dividend payout ratio with 1% significance level affect Tobin's Q negatively. Other independent variables have no any statistically significant effect on Tobin's Q.

Random effects regression was also run. The findings of this regression show that only 9% of the change in Tobin's Q is explained by independent variables. First major shareholder, second major shareholder, and leverage ratio are not statistically significant. There is negative and significant relationship between Tobin's Q and free float rate, firm size, and dividend payout ratio.

Model 2 shows the OLS, fixed effects and random effects regression results, respectively, in which dummy variables are included in the model for the dependent variable Tobin's Q. Debt ratio is omitted from the model as like as the analysis presented in Model 1 due to the high correlation of this ratio with Tobin's Q in order to eliminate the effects of this variable.

Financial crises emerged in 2001 and 2008 are included in the regression analysis in order capture the effects on firms' financial performances listed in Istanbul Stock Exchange.

As a result of the OLS regression analysis 2008 crisis has no any significant effect on Tobin's Q. Similarly there is not any significant relationship between the lead shares of the major shareholder and firm size. There is negative and significant relationship between second major shareholder, free float rate, dividend payout ratio and Tobin's Q. OLS regression shows a positive and significant coefficient for dummy variable represents 2001 crisis. Leverage ratio has also positive and significant effect on Tobin's Q. These independent variables explain 14% of the changes in Tobin's Q.

Fixed effects regression results show that approximately 68% of the change in Tobin's Q is explained by the independent variables. Firm size represented by log of assets, dividend payout ratio, and dummy variables noted as crisis years of 2001 and 2008 are significantly associated with the company performance. Although log of assets and payout ratio affect the firm value negatively, the effects of crisis dummies on Tobin's Q are positive.

According to the random effects regression analysis first major shareholder, second major shareholder, leverage, and 2008 crisis dummy do not significantly affect the firm's performance. Approximately 12% of the changes in Tobin's Q are explained by the independent variables. Free float rate, dividend payout ratio and log of assets have negative coefficients. There is positive and statistically significant relationship between 2001 crisis dummy and Tobin's Q.

2.4.1.2 Regression Analysis for Return on Asset

Return on asset is another performance indicator in this analysis considered as dependent variable and table 8 shows the OLS, fixed effects and random effects regression results, respectively. Model 1 represents the model in which dummy variables are not included and Model 2 represents the model in which dummy variables are included.

Table 8: Regression Results for Return on Assets

	Panel A: OLS Regression Results		Panel B: Fixed Effects Regression Results		Panel C: Random Effects Regression Results	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Constant	-0.028 (-0.750)	-0.046 (-1.195)	0.268 ^b (2.241)	0.192 (1.637)	0.072 (0.661)	-0.046 (-0.635)
FMS	0.0001 (0.294)	0.0001 (0.416)	0.0004 (1.149)	-0.001 (1.495)	0.0002 (0.995)	0.0002 (0.654)
SMS	-0.0004 (-1.261)	-0.0004 (-1.265)	-0.002 (-0.413)	-0.0001 (-0.140)	-0.0002 (-0.630)	-0.0004 (-1.454)
FREE	-0.001 ^b (-1.974)	-0.001 ^c (-1.873)	-0.001 (-1.350)	-0.001 (-1.030)	-0.001 ^c (-1.853)	-0.001 ^c (-1.906)
LEV	0.009 ^a (2.787)	0.009 ^a (1.821)	0.009 ^b (2.445)	0.009 ^a (2.609)	0.008 ^b (2.120)	0.009 ^b (2.240)
DEBT	-0.227 ^a (-10.825)	-0.226 ^a (-10.859)	-0.304 ^a (-6.296)	-0.296 ^a (-6.116)	-0.258 ^a (-5.789)	-0.226 ^a (-6.616)
LOG_ASSET_	0.019 ^a (5.061)	0.022 ^a (5.509)	-0.014 (-1.484)	-0.007 (-0.724)	0.008 (0.933)	0.022 ^a (3.472)
PAYOUT	0.110 ^a (10.922)	0.109 ^a (11.144)	0.065 ^a (7.774)	0.065 ^a (8.024)	0.087 ^a (8.819)	0.109 ^a (11.548)
D2001		-0.012 (-1.104)		-0.009 ^b (-2.028)		-0.012 (-1.258)
D2008		-0.046 ^a (-4.410)		-0.040 ^a (-3.294)		-0.045 ^a (-3.929)
F-Statistics	107.737	88.012	8.130	8.29	78.554	88.012
Adjusted R²	0.314	0.324	0.466	0.474	0.249	0.324
# of Observations	1635	1635	1635	1635	1635	1635

^a represents significance at 1% level, ^b represents significance at 5% level, ^c represents significance at 10% level. T-statistics are given in parenthesis. The dependent variable is return on assets. Panel A shows the OLS regression results, Panel B shows the fixed effects regression results and Panel C shows the random effects regression results. The independent variables are logarithm first major shareholder (FMS), second major shareholder (SMS), free float rate (FREE), leverage (LEV), debt to equity ratio (DEBT), logarithm of assets (LOG_ASSET), dividend payout ratio (PAYOUT), (DIV/NI), 2001 crisis dummy variable (D2001), 2008 crisis dummy variable (D2008). Model 1 represents the results of first regression without dummy variables. Model 2 represents the results of second regression with dummy variables.

Whereas the relationship between free float rate, leverage, debt ratio, logarithm of total assets, payout ratio and firm performance is statistically significant at the 5% level for free float rate and 1% level for the other variables, there seem to be no significant relationship between first major shareholder, second major shareholder and firm performance in OLS model. Free float rate and debt ratio have negative impact on firm performance whereas other significant variables have positive impact on return on assets.

The fixed and random effects regression results indicate a positive effect of leverage, and dividend payout ratio on firm performance measured by return on assets similar to the results of random effects regression. First major shareholder, second major shareholder, and firm size measured by logarithms of total assets have insignificant impact on firm performance in both fixed and random effects regressions. There is negative and statistically significant effect of debt ratio on return on assets in fixed and random effects models.

Model 2 shows the OLS, fixed effects and random effects regression results, respectively, in which dummy variables are included in the model for the dependent variable return on assets.

OLS results show that leverage, logarithm of assets and dividend payout ratio are significantly and positively related to return on assets at the 1% level. First major shareholder, second major shareholder, 2001 crisis dummy has no significant impact on return on assets. There is negative and significant relationship between free float rate, debt ratio, 2008 crisis dummy and firm performance.

Fixed and random effects regressions provide similar results about the insignificant effects of first major shareholder, and second major shareholder on firm performance.

Free float rate and firm size are also insignificant variables in the fixed effects model. Additionally, this regression shows that 2001 crisis and 2008 crisis dummies have naturally negative and significant effects on return on assets at 5% level and 1%

level, respectively. There is positive and significant relationship between leverage, dividend payout ratio and firm performance.

2001 crisis dummy has no significant impact on return on assets whereas the effect of 2008 crisis dummy on firm performance is negative and statistically significant at 1% level in random effects regression. This regression also shows that there is negative and significant relationship between free float rate, debt ratio and return on assets. Leverage, logarithms of total assets and dividend payout ratio positively and significantly affect the firm performance

2.4.1.3 Regression Analysis for Return on Equity

Finally, this study calls attention to the other performance indicator, return on equity. Return on equity is used as dependent variable and table 9 shows the OLS, fixed effects and random effects regression results, respectively, in which dummy variables are not included.

Table 9: Regression Results for Return on Equity

	Panel A: OLS Regression Results		Panel B: Fixed Effects Regression Results		Panel C: Random Effects Regression Results	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Constant	-0.266 ^a (-2.795)	-0.353 ^a (-3.550)	0.318 (1.252)	0.034 (0.148)	-0.109 (-0.583)	-0.251 (-1.322)
FMS	-0.0010 (-0.751)	-0.0004 (-0.583)	-0.0010 (-0.572)	-0.0003 (0.170)	-0.0010 (-0.517)	-0.0002 (-0.278)
SMS	-0.0003 (-0.293)	-0.0003 (-0.310)	0.001 (0.487)	0.002 (0.671)	0.001 (0.481)	0.001 (0.566)
FREE	-0.001 (-1.409)	-0.001 (-1.236)	-0.002 (-1.163)	-0.002 (-0.821)	-0.001 (-1.492)	-0.001 (-1.210)
LEV	-0.129 ^a (-7.922)	-0.129 ^a (-7.980)	0.151 ^a (-8.873)	-0.150 ^a (-8.708)	-0.136 ^a (-9.638)	0.136 ^a (-9.579)
DEBT	0.309 ^a (3.686)	0.300 ^a (3.677)	0.365 ^a (3.432)	0.374 ^a (3.622)	0.319 ^a (2.905)	0.314 ^a (2.883)
LOG_ASSET_	0.042 ^a (3.943)	0.054 ^a (4.812)	-0.025 (-1.612)	0.005 (0.332)	0.022 (1.261)	0.040 ^b (2.008)
PAYOUT	0.194 ^a (10.976)	0.185 ^a (10.984)	0.122 ^a (6.365)	0.120 ^a (6.191)	0.168 ^a (9.153)	0.159 ^a (9.146)
D2001		0.028 (0.729)		0.015 (0.851)		0.025 (-5.438)
D2008		-0.142 ^a (-5.122)		-0.127 ^a (-4.362)		-0.139 ^a (-5.438)
F-Statistics	115.607	94.963	7.487	7.669	114.265	94.220
Adjusted R²	0.329	0.341	0.443	0.452	0.327	0.339
# of Observations	1635	1635	1635	1635	1635	1635

^a represents significance at 1% level, ^b represents significance at 5% level, ^c represents significance at 10% level. T-statistics are given in parenthesis. The dependent variable is return on equity. Panel A shows the OLS regression results, Panel B shows the fixed effects regression results and Panel C shows the random effects regression results. The independent variables are logarithm first major shareholder (FMS), second major shareholder (SMS), free float rate (FREE), leverage (LEV), debt to equity ratio (DEBT), logarithm of assets (LOG_ASSET), dividend payout ratio (PAYOUT), (DIV/NI), 2001 crisis dummy variable (D2001), 2008 crisis dummy variable (D2008). Model 1 represents the results of first regression without dummy variables. Model 2 represents the results of second regression with dummy variables.

Results of all regressions run show that there is no significant relationship between ownership concentrations represented by the first three independent variables in the model namely first major shareholder, second major shareholder, free float rate and return on equity.

OLS results show that debt ratio, logarithms of assets and dividend payout ratio positively, leverage negatively affect firm performance at 1% significance level.

Fixed and random effects regression results show that logarithm of assets is insignificant in explaining the firm performance.

Debt ratio and dividend payout ratio have positive and significant effect on return on equity at 1% level whereas leverage has negative impact on return on equity at 1% significance level in both fixed and random effects regressions.

Model 2 shows the OLS, fixed effects and random effects regression results, respectively, in which dummy variables are included in the model for the dependent variable return on equity.

Results of all regressions show that there is no significant relationship between ownership concentrations represented by the first three independent variables in the model namely first major shareholder, second major shareholder, free float rate and return on equity. Similarly, results show that 2001 crisis dummy has no significant impact on firm performance whereas 2008 crisis dummy has negative and significant effect on return on equity at 1% level. Results also indicate that the relation between debt ratio, dividend payout ratio and firm performance is positive and statistically significant at 1% level. Leverage is negatively related to return on equity at 1% significance level. There is insignificant relationship between logarithm of assets and firm performance in fixed effects regression where as positive and significant relationship in OLS and random effects regressions.

CONCLUSION

The importance of corporate governance has increased in publicly held companies after the big firm scandals. Financial crisis emerged globally or domestically also draw attention to the corporate governance issue as a key element for longer and better financial performance.

The main factors in companies' sustainable success are applications of corporate governance principles, observing their progresses and taking actions on time. Companies' corporate governance applications make the firms' sustainable performances increase and inspire confidence for it. Corporate governance makes the company's board and audit system transparent, fair, accountable and certain. Hence corporate governance is a management style increases the company value. Corporate governance makes it possible to audit all internal and external risks and provides ability of taking actions against them by evaluating operating activities and process efficiency.

Sustainability is more important in publicly held companies. Even though investors can reach the financial statements of these companies, they would also want to obtain the information indicates the non-financial performance. Non-financial data is the early warning system against the future risks and control the company processes. Investors can evaluate the information that adds value to the share.

The main objective of this study is to explain how firm value is affected by a group of variables which capture the effect of ownership structure in the non-financial Turkish companies listed on the Istanbul Stock Exchange.

The sample of the study consists of non-financial firms operating in the period covers between 1999 and 2008. In the models, performance indicators, Tobin's Q, return on assets, and return on equity, are used. The most common performance indicator is Tobin's Q in the literature. Indicators of the firm's ownership structure are represented by first major shareholder, second major shareholder, and indicator of the firm's compatibility with corporate governance is represented by free float rate. Additionally, leverage, debt to equity ratio, firm size and dividend payout ratio are used

to explain firms' financial performances. In order to observe the effects of financial crisis occurred in 2001 and 2008, dummy variables are used.

As a result of the descriptive statistics, 42% of total observations show that the holding companies are the leading ownership. The number of firms owned by holding companies has decreased in crisis periods. Non-financial firms are the second leading ownership with the rate of 21%. Non-financial firms have increased their ownership in more four companies in 2001. 13% of total sampling is comprised of family owned firms. There is no any significant change in ownership structure of family owned firms during the crisis periods. Foreigners have transferred their shares in two companies in 2001 financial crisis. But the growth of the foreigners' ownership in ISE firms have continued in the following years while the state owned companies have gradually decreased in recent years.

As a result of regression analysis, dividend payout ratio has negative and statistically significant effect on Tobin's Q, whereas it has positive and also significant effect on both return on assets and return on equity in all analysis including OLS, fixed, and random effects regressions with and without financial crisis dummy variables. Firm size is also another significant independent variable explains firms' performances and it also negatively affected Tobin's Q. There is positive relationship between firm size and return on assets and return on equity. Leverage and debt to equity ratio have statistically significant effect on return on assets and return equity. Return on asset is positively affected by leverage while return on equity is positively affected. Debt to equity ration has negative effect on return on asset while it has positive effect on return on equity. Return on asset and return on equity are negatively affected by 2008 crisis. Indicators of ownership structure show insignificant relationship with return on equity. Free float rate have negative and significant effect on Tobin's Q and return on asset. None of the regression analysis show significant relationship between financial performance and first major shareholder. Second major shareholder is only significant to explain Tobin's Q in OLS model. The relationship between second major shareholder and Tobin's Q is negative in this model.

Since the study covers the period between 1999 and 2008, effects of the crisis on the companies' financial performances in the post-crisis period in 2009 and the following years cannot be examined in this study. In order to capture the effects of crisis in coming years, this study can be expanded by future studies.

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