İSTANBUL BİLGİ UNIVERSITY INSTITUTE OF SOCIAL SCIENCE FINANCIAL ECONOMICS MASTER'S DEGREE PROGRAM

ANALYZING THE IMPACT OF CORPORATE GOVERNANCE ON SHARE PRICE AND COMPANY VALUE USING PANEL DATA ANALYSIS

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KURUMSAL YÖNETİMİN HİSSE SENEDİ FİYATI VE ŞİRKET DEĞERİNE ETKİSİNİN PANEL VERİ ANALİZİ KULLANILARAK İNCELENMESİ

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| | Table of Contents | |
|------|---|------|
| | ACKNOWLEDGEMENTS | . iv |
| | ABBREVIATIONS | vii |
| | LIST OF TABLES | . ix |
| | ABSTRACT | X |
| | ÖZET | . xi |
| | INTRODUCTION | 1 |
| | 1. FIRST CHAPTER | 3 |
| | 1.1. OVERVIEW: CORPORATE GOVERNANCE | 3 |
| | 1.1.1. Concept of Corporate Governance | 4 |
| | 1.1.2. Purpose of Corporate Governance | 5 |
| | 1.1.3. The Theoretical Basis of Corporate Governance | 7 |
| | 1.1.3.1. Agency Theory | 7 |
| | 1.1.3.2. Stakeholder Theory | 8 |
| | 1.1.3.3. Institutional Theory | 10 |
| | 1.2. OCCURRENCE OF CORPORATE GOVERNANCE | |
| STRU | ICTURES | |
| | 1.2.1. Crisis | |
| | 1.2.2. Globalisation | |
| | 1.2.3. Privatization Wave | |
| | 1.2.4. Corporate Scandals | |
| | 1.2.5. Debt and Equity Transactions | |
| | 1.3. THE CORPORATE GOVERNANCE PRINCIPLES | |
| | 1.3.1. Transparency | |
| | 1.3.2. Accountability | |
| | 1.3.3. Responsibility | |
| | 1.3.4. Fairness. | |
| | 1.4. DEVELOPMENT OF CORPORATE GOVERNANCE | |
| | 1.4.1. Major Regulations on Corporate Governance in the World | |
| | 1.4.1.1. Cadbury Report | |
| | 1.4.1.2. Greenbury Report | 19 |
| | 1.4.1.3. Hampel Report | 19 |

| 1.4.1.4. The OECD Principles of Corporate Governance | 20 |
|---|----|
| 1.4.1.5. Sarbanes Oxley Act | 21 |
| 1.4.2. Major Regulations on Corporate Governance in Turkey | 23 |
| 1.4.2.1. Capital Markets Board of Turkey | 23 |
| 1.4.2.2. Turkish Industry & Business Association of Turkey | 24 |
| 1.4.2.3. Corporate Governance Association of Turkey | 24 |
| 1.4.2.4. 6102: The New Turkish Commercial Code (TCC) | 25 |
| 1.4.2.5. Borsa Istanbul Corporate Governance Index (XKURY). | 26 |
| 2. SECOND CHAPTER | 34 |
| 2.1. LITERATURE REVIEW | 34 |
| 2.1.1. Corporate Governance Studies in the International Area | 34 |
| 2.1.2. Corporate Governance Studies in Turkey | 36 |
| 3. THIRD CHAPTER | 37 |
| 3.1. DATA AND SAMPLE DESCRIPTION | 38 |
| 3.2. METHODOLOGY | 47 |
| 3.3. PANEL DATA ANALYSIS | 48 |
| 3.4. EMPRICAL FINDINGS | 49 |
| 3.5. CONCLUSION | 52 |
| REFERENCES | 54 |
| APPENDIX | 62 |

ABBREVIATIONS

BIST: Indices of Borsa İstanbul

CAPEX: Capital Expenditures

CBI: Confederation of Business Industry

CBM: Capital Markets Board of Turkey

CF: Cash Flow

EBITDA: Earnings Before Interest, Taxes, Depreciation, and Amortization

Et al.: And Others

FTSE: The Financial Times Stock Exchange

GOV: Governance

GR: Sales Growth

JFE: Journal of Financial Economics

LEV: Financial Leverage of the Company

LNSIZ: Natural Logarithm of Total Assets

M&A: Mergers and Acquisitions

MCAP: Market Value of Equity

N: Number of Observations

OECD: Organisation for Economic Co-operation and Development

OLS: Ordinary Least Squares

PDP: Public Disclosure Platform

PWC: PriceWaterhouseCoopers

Q: Tobin's q

ROE: Return on Equity

SEC: Securities and Exchange Commission

SOX: Sarbanes Oxley Act

TCC: Turkish Commercial Code

TKYD: Corporate Governance Association of Turkey

TÜSİAD: Turkish Industry & Business Association

U.S. / USA: United States of Amerika

VAR: Variance of the Share Prices

WBCSD: World Business Council for Sustainable Development

XKURY: Borsa İstanbul Corporate Governance Index

LIST OF TABLES

| Table 1.1: Expectations of Stakeholders | 9 |
|---|---------------|
| Table 1.2: Institutions with corporate governance awards (2018) \dots | 25 |
| Table 1.3: Corporate Governance Rating Agencies | 27 |
| Table 1.4: Sections of corporate governance rating | 27 |
| Table 1.5: Corporate Governance Index (XKURY) | 32 |
| Table 3.1: BIST100 Companies Subject to BIST Governance Index | x . 38 |
| Table 3.2: BIST100 Companies Having No Governance Score | 40 |
| Table 3.3: Dependent Variables of the Study | 43 |
| Table 3.4: Independent Variables of the Study | 43 |
| Table 3.5: Descriptive Statistics of the Companies | 46 |
| Table 3.6: Comparison of the Means of Companies | 47 |
| Table 3.7: The Results of Ordinary Least Squares Method | 49 |
| Table 3.8: The Result of Hausman Test | 50 |
| Table 3.9: The Results of Random Effects Method | 51 |

ABSTRACT

Corporate governance has formed the focus of new management system and management mentality. Starting from this point of view, the ambition of this study is to examine the philosophy and the operations of the companies in the light of corporate governance applications and analyse the impact of corporate governance on company value. The practices of corporate governance have been generally examined specific to the public joint stock company, whose capital is expected to be spread over the base.

Within the scope of the study, the companies which has been publicly traded in BIST100 Index and Governance Index within Borsa İstanbul have been selected as the sample for period starting from the year 2016 to the year 2018. The relationship between corporate governance rating and accounting-based (return on equity), market-based (Tobin's q ratio) and cash-based (company's cash flow) as valuation indicators has been investigated.

In the analyses, which have been conducted by using panel data analysis, the data of the 83 companies, which have been chosen as the sample among the BIST companies for the period starting from the year 2016 to the year 2018, have been tested with pooled regression (OLS) method and random effects method.

As the consequence of this study, it has been observed that the corporate governance ratings of the companies have a statistically significant no impact on company value from the point of view market-based, accounting-based, and cash-based value criterions. Therefore, it has been arrived at a conclusion that there has been no significant governance impact on the company value.

Key words: Corporate Governance, Company Value, Panel Data Analysis, Borsa İstanbul, Corporate Governance Index

ÖZET

Yeni yönetim sistem ve anlayışının odak noktasını kurumsal yönetim

oluşturmaktır. Buradan hareketle, bu çalışmada şirketlerin felsefesini ve

işleyişlerini kurumsal yönetim ışığında incelemek ve bu kapsamda kurumsal

uygulamalarının şirket değeri üzerindeki etkisini yönetim incelemek

amaçlanmaktadır. Kurumsal yönetim uygulamaları genellikle sermayesi tabana

yayılmış olması beklenen anonim şirket özelinde incelenmiştir.

Çalışma kapsamında, örneklem olarak 2016-2018 yıllarında Borsa İstanbul

bünyesindeki BIST100 Endeksi'nde ve Kurumsal Yönetim Endeksi'nde işlem

gören şirketler yer almıştır. Örneklemde kullanılan şirketlerin kurumsal yönetim

notu ile şirketlerin muhasebe bazlı, piyasa bazlı ve nakit bazlı değer ölçütleri

arasındaki ilişki incelenmiştir.

Panel veri analizi kullanılarak yapılan analizlerde örneklem olarak seçilen

83 şirketin 2016 – 2018 dönemi için kullanılan finansal verileri Havuzlanmış

Regresyon (OLS), Rassal Etkiler (random-effects) yöntemleri ile test edilmiştir.

Çalışmanın sonucunda, şirketlerin kurumsal yönetim notunun bulunmasının

Tobin' in q oranı, özsermaye karlılığı ve nakit akışı üzerinde istatistiksel olarak

anlamlı bir etkisinin bulunmadığı gözlenmiştir. Dolayısıyla, kurumsal yönetim

uygulamalarının şirket değeri üzerinde istatistiksel anlamda önemli bir etkisinin

bulunmadığı sonucuna erişilmiştir.

Anahtar kelimeler: Kurumsal Yönetim, Şirket Değeri, Panel Veri Analizi,

Borsa İstanbul, Kurumsal Yönetim Endeksi

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INTRODUCTION

Globalization and technological developments removed the borders between countries and capital movements have started to increase in the world. As pointed out in the Joel Bakan's, law professor of University of British Columbia, documentary film *The Corporation*, "one hundred and fifty years ago, business corporation was a relatively insignificant institution. Today it is all-pervasive. Like the church, the monarchy and the Communist Party in other times and places, the corporation is today's dominant institutions." (Mark Achbar, 2003)

While companies had limited area of freedom in the period when they started to exist, companies have great power and effects in socio-economic order. The work of WBCSD (WBCSD, 2013) states that the business is a dominant driving power of socio-economic impact by generating employment, training employees, building physical infrastructures, having access to raw materials, performing a technology transferring, doing the requirements by fulfilling tax liabilities, and expanding access to services and products, companies have an impact on people's wealth, abilities, opportunities and living standards. When the company has been considered as piece of the puzzle in a society, if it has been removed, the picture has not been completed. (Mark Achbar, 2003)

In this study, it has been aimed to examine the philosophy and the operations of the business corporations which are came to exist as a regulated way of doing business one hundred and fifty years ago and considered as a legal person in these times in the light of corporate governance applications. In this context, it has been aimed to analyse the impact of corporate governance applications on company valuation. The practices of corporate governance have been generally examined specific to the joint stock company, whose capital is expected to be spread over the base.

In the first chapter of this study, corporate governance has been tried to explain conceptually, in the meantime the impact of practices of corporate governance on companies were mentioned. From this point of view, the concept of

corporate governance, its definition, the process of occurrence and importance of corporate governance has been explained. Furthermore, the theoretical and historical development of corporate governance and the corporate governance principles have been emphasised. Thereafter, the events which has an impact on occurrence and development of corporate governance approach have been outlined. In the second chapter of this study, the studies which take part in literature has been given a place. Within this scope, corporate governance studies has been mentioned at national and international area. In the last chapter of this study, the impact of corporate governance grades of the companies which have been publicly traded in Borsa İstanbul (İstanbul Stock Exchange) and subject to BIST Corporate Governance Index within Borsa İstanbul on share price and on the nature of the company value have been examined by using panel data analysis. In this regard, the share prices have been compared between the companies do not have a rating score and the companies that receive the score in compliance with the regulations of Capital Markets Board of Turkey from the rating agencies, which have been licenced by Capital Markets Board in Turkey, among the list on BIST-100 Index. The comparison level is the performance of the companies with the governance score and do not meet these requirements and do not have a governance rating score for the last three years. To put in another way, it has been examined whether the share performance of the companies that have the corporate governance rating score are better than the other companies listed in BIST100 Index for the last three years.

Considering the literature, the influence of corporate governance applications on company value has been examined by looking at daily / monthly and yearly share price changes of joint stock companies, which have been traded in Borsa İstanbul. While examining the medium term impact of corporate governance applications on company value, the market-based, accounting-based and cash-based indicators which have been used as valuation factors will be enriched my study. Analysing the impact of corporate governance, which has been regarded as an important indicator of sustainability, on company value will make a scientific contribution to the academic works.

1. FIRST CHAPTER

1.1. OVERVIEW: CORPORATE GOVERNANCE

Corporate governance has been become one of the essential topics in the world.

Corporation is a word which has been originally come from association of people who had been approved by the state to carry out some particular function. (Mark Achbar, 2003). Noam Chaomsky (2003) states that the civil war and industrial revolution companies had achieved a substantial growth with the industrial revolution and consequently banking and heavy industry had been arised. The corporate lawyers recognized that they have needed more dominance to operate and they wanted to remove some of the restrictions that had been placed from a historical perspective on the form of corporate. Following the civil war, the 14th amendment had been made in order to protect the black people.

The 14th amendment had been enacted at the end of the American civil war with a view to giving the rights to the black people. The amendment empowered the rights to black people to own their properties equally and guaranteed that every person had the equal protection by the laws. Between the year 1890 and the year 1910, 307 case files had been brought to the court with regard to 14th Amendment. In kind of weird way, 288 of the cases which come to the court had been belonged to the corporations. Corporations had claimed that they had been some kind of person: legal person. Thus, the Court had accepted the claims of the corporations and a legal idea which more commonly referred to as corporate personhood has been born: "corporations are people"

As legal person, corporations are artificial creatures and act with profit drive. (Mark Achbar, 2003)

When looking at the term corporation, the question has been come to mind: What kind of a person is the corporation? The corporation have been given the rights of immortals.

Mark Stuart, former CEO of Shell, states that the businesses required to be seen constitutive members of society. But the problem comes in the profit motivation.

When looking at the corporation or company which is under the law a legal person following question comes to mind: to whom the companies own loyalty? According to Robert Monks, Corporate Governance Advisor from Harvard University, corporations have obligation themselves in order to expand and be more profitable. By fulfilling this, it has been tendency to be more profitable in a way that makes to other people pay the bills for impact of corporations on society. There is a statement that has been used by the economists: externalities. While the companies has been doing their job, they perform behaviour without a consent from the third parties and they want from the other people to deal with problems arising as a nature of companies' work. This approach of the companies brings the externalities problem. According to Monks (2003), the corporation is the externalizing machine. While the companies achieving the goals, they have not aimed a malice. By nature, companies have only serve the purpose of one basic thing: to create as much profit as possible in every quarter. This is the impulse of capitalism. (Mark Achbar, 2003)

1.1.1. Concept of Corporate Governance

Corporate governance can be described as the whole of the mechanisms developed in order to harmonize the conflicting interests between all stakeholder groups (shareholders and stakeholders). (Arslantaş, 2012) To put it another way, corporate governance serves the purpose of reconciliation the rightful interests all of stakeholders with the interests of the company and creating the best synthesis from this conflict. At this point, corporate governance emphasises that management and decision-making processes should be carried out with the cooperation and active participation of all stakeholder and managers should act in an agreeable, fair, transparent, accountable, effective and responsible approach. (Arslantaş, 2012)

The 19th century was the period when the entrepreneurs who formed the basis of today's multi-partner companies, and 20th century was the period when the

management class left a mark. The 21st century will be the period when corporate governance become prominent. (Arslantaş, 2012)

Elementarily, corporate governance is to enable to the corporations to be managed in an open and honest manner. Due to the fact that, all components of management has been supposed to form in accordance with this purpose. Corporate governance is basically field a work regarding the management of joint stock companies and represents the ideal concept of corporate management. (Arslantaş, 2012)

Roberts (2001) described the corporation as an imaginary phenomenon which has no sensibility and incapable of responsibility and has been immortal when compared to person. Considering the people's tendency to obey the authority this circumstance has been taken a different dimension. Intensively obedience to corporations' actions and market dynamics might make the corporations' ethical actors a part of the scandals. (Çakar & Alakavuklar, 2011)

1.1.2. Purpose of Corporate Governance

The peak trust problem in trade has been occurred at the early stage of the 21st century. (Mark Achbar, 2003)

The ideal model of joint stock companies is a partnership whose capital spread over the base and engages in large-scale economic activities. In order to mention that the partnership is an incorporated, the companies which has been seen on the axis of the share concept, has been necessary isolated from the personal characteristics and interest of shareholders, executives and those who have a decisive influence on the partnership for any reason. (Deloitte, 2007) Looking at the companies, it has been seen that lots of joint-stock company are generally structured and managed in the direction of senior shareholders' expectations and those priorities. Corporate governance is a conception of eliminating the drawbacks of this reality. Desired and preferred structure is that to isolate from the impact of the individual interests and initiatives of the shareholders holding a majority of the joint-stock companies' shares and to manage as a mechanism with paying regard to legitimate benefits of whole stakeholders. (Deloitte, 2007)

The intent of corporate governance has been to prevent from the wrong decisions with the profit motivation of the companies and avoid to cause to harm of individual or institutional parties which related to companies and regulate this process. (Arslantaş, 2012)

The function of board of directors has been to manage the company in compliance with the shareholders' expectations. But the expectations of the shareholders has not been only criterion, and also there has been conflict of interests of the shareholders. The statutory liability of the board of directors has not been to the shareholders, has been accountable to company. As a priority, the board of directors has to consider the interest of the company. But, it is not possible to stay in the position without looking after shareholders' interests. It is the shareholders who has chosen the board of directors. Therefore, the board of directors have to meet the expectations of the shareholders. In doing this, they have to look after the interests of the company and have to convince the shareholders for the actions which has to be taken in the direction of company's interests. (Ararat & Yurtoğlu, 2012)

The principle task of the board of directors as the top decision making body is to create a continual and permanent company value to the shareholders. Apart from all these, the board of directors has been accountable to stakeholders for protecting and improving company's reputation in respect of law, codes of conduct and commitments. According to Arslantaş and Fındıklı (2010), to exhibit behaviour to the stakeholders in the form of goals which have been reached by the companies and to care about the rights possessed by the stakeholders has been formed a basis of a relationship between the company and stakeholders.

Corporate governance forms a basis of corporate trust and is of capital importance in respect of both managerial and sustainability of access to resource of institutions. (Arslantaş, 2012)

With the corporate governance applications it is possible to give confidence both of domestic and foreign investors. In other words, it is possible to provide capital inflow. On the other part, it is important to quality of management from the lenders' perception. The risk premium will be reduced at the rate of reliability of the company. The financial resource that has been best cost effective for the company is the fund obtained from the sale of the shares in the stock exchange. Becoming charming, this situation is possible providing that the value of share reflect the value of the company. (Ararat, 2011)

1.1.3. The Theoretical Basis of Corporate Governance

1.1.3.1. Agency Theory

Discussion of the conflict of interests between managers and shareholder has been gone back to Adam Smith who has foreseen that there will be potential conflicts of interests when the ownership and control has not been compatible with each other. In the book, *The Wealth of Nations* published in 1776, Adam Smith refers to this situation with the following words: "Being the managers rather of other people's money than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own." (Smith, 1776)

As pointed out in the Roger Martin's article (2010) modern capitalism has two fundamental periods: managerial capitalism and shareholder value capitalism. Managerial capitalism when has begun in 1932, it brought a radical approach regarding professional executives to take part in the business. The second, shareholder value capitalism, has begun in 1976 and stated that the purpose of the corporations had been to maximize the wealth of the shareholders and if the corporations chase this goal, both of shareholders and society will benefit. (Martin, 2010) Then in 1976, managerial capitalism had been in the line of fire: Michael C. Jensen and William H. Meckling's article "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure", published in the JFE. In this work, which has become the most-cited academic business work of ever, it has been declared that owners had been tired of professional managers, who increased their own financial wealth rather than that of the shareholders. It has been mentioned in the article that it has been bad for shareholders and destructive for the economy. In the meantime, Jensen and Meckling had argued that the managers had been

spending extravagantly corporate and social resources to feather their own nests. (Martin, 2010)

According to Laiho (2011), agency theory have a place as a central role in the literature regarding corporate governance. It has been stated that corporate governance describes the main conflict between managers which have been self-interested and shareholders.

According to agency theory, it has been regarded that the managers in the joint stock companies get further away from the purpose of maximizing the shareholder value. (Arslantaş, 2012) As a result, a conflict of interest has been appeared between managers and shareholders regarding the conflict. While the aim of shareholders' to maximize the profit, the expectations of the managers has been to have higher wage and utility maximizing. This differentiation has been emerged as a principal – agent problem.

1.1.3.2. Stakeholder Theory

While focusing on issues such as how to manage businesses efficient and productive, identification of deficiencies administratively and how these deficiencies can be solved, the concepts of shareholder, employee and stakeholder has been appeared.

According to Erişmiş (2013), stakeholders as a group or person who affect the reach of corporations' goals or affected by reach of the corporations. Furthermore, stakeholder has been defined in the Communique on Corporate Governance by CBM: "Stakeholders are persons, institutions or interest groups that are related with the achievement of goals or activities of the corporation such as employees, creditors, clients, suppliers, syndicates, several non-profit organizations. The corporation in its transactions and activities shall protect the rights of the stakeholders which have been regulated in legislation and reciprocal contracts." (CBM, 2014)

Clarke (1998) emphasises that stakeholders have expectations from the corporations and summarized these requests in a table.

Table 1.1: Expectations of Stakeholders

| Partners | Expectations of Stakeholders | Information Supplied by |
|--------------|--|--------------------------------------|
| | | Organisations |
| Employees | Remuneration, job security, training | Company reports, employment news, |
| | | negotiations |
| Shareholders | Dividends and increased share price | Annual reports and accounts, |
| | | information on mergers and takeovers |
| Customers | Quality, service, security, value for | Advertising, documentation, surveys |
| | money | |
| Banks | Company liquidity and solvency, | Coverage ratios, security, cash flow |
| | value of guarantees, cash flow | forecast |
| | generation | |
| Suppliers | Stable and lasting relationship | Prompt payment |
| State | Respect for laws, employment, | Reports to official bodies, press |
| | competitiveness, and reliable data | releases |
| Public | Operational security, contribution to | Security reports, bulletins |
| | the community | |
| Environment | Substitution of unsustainable | Environmental reports, conformance |
| | resources and non-polluting activities | reports |

Source: (Blondel, Joffre, Planchais, & Simon, 2012)

With this approach, it has been seen that corporations has been no longer the structures that meets the needs of society by serving goods and services. It has been defined by Donaldson and Preston (1995) that the corporations has been the system which have lots of participant and related parties and each of parties receive a return regarding their contributions to the corporations.

Companies will be in the heart of the system as an agent by providing interchanges in terms of information, product, service, talent and other resources in this stakeholder network and they will be able to optimize both their expectations of stakeholders and their own wealth with win-win approach. (Walsh, 2005)

According to Umanto and Atmoko (2015) corporate governance is a form of relations and process that implemented by a company to create surplus value to the shareholders in a long term and sustainable way while being attentive to the interests of all stakeholders in relation to existing regulations.

1.1.3.3. Institutional Theory

We can say that the structure and behaviour of companies have been influenced by the institutional pressures, expectations and beliefs.

As stated in the work of Fama (1980), Fama and Jensen (1983), the mechanism of auditing that comes from outside of the company serves as the mechanism to secure that the management will behave in accordance with existing regulations and procedures in order to achieve the company goals. (Umanto & Atmoko, 2015)

The work of Apaydın (2009) states that regulatory authorities have been first environmental element that force to corporations to become institutionalization and regulatory authorities have forced the corporations to act in certain forms. The corporations respond to demands of these authorities with legitimacy concern. Unless the companies have been in compliance with this regulations, they will be subject to the direct or indirect enforcements. The norms which created by this regulatory authorities have been function as a control mechanism.

According to Greenwood and Hinings (1996), reaction of the companies will be dependent on the internal dynamics of each company despite the pressure from the corporate area and / or market. In addition to this, the behaviours of the companies will be changed depend on the cause of pressure, the identity of the regulatory, the type of pressure. (Oliver, 1991)

Within this context, the principles, codes and recommendations which have been brought under the name of corporate governance mean that companies have been included new elements in the corporate environment to the corporations.

1.1.3.4. Resource Dependence Theory

Based on the studies leading to the formation of the theory, we can state how resources are important in concern with sustaining the activities of the company. According to Arslantaş (2012), the companies have not been fully self-sufficient. Companies have to take support from the environment in order to reach the resources which needed for continuation of life. The uncertainty in this external environment and causing an addiction of the relationship for the resource procurement has been made the environment important. In other words, the degree of dependence on the resources that companies need constitute a basis of resource dependence theory.

1.2. OCCURRENCE OF CORPORATE GOVERNANCE STRUCTURES

It can be said that the need for standards to improve the management of the company has been occurred for the first time in the US in the 1970s as a result of the Watergate scandal and the related corruptions. It has been seen that corporate governance had been come to existence in the United States with the purpose of ensuring strengthening the financial control against the corruptions. (Arslantas, 2012)

Following the adverse events in the United States in early 1980's, it has been seen that qualification of the management had been generated a discussion in England. After the corporate scandals (Polly Peck, British & Commonwealth, etc.), England had been started to perform studies which had been formed a basis of corporate governance.

In this section, the reasons of the occurrence of corporate governance has been listed with headings.

1.2.1. Crisis

Subsequently the Asian financial crisis, which started in the middle of 1997, corporate governance has been at the center of the reforms oriented with making to develop the capital markets, defending the investors' rights, increasing the capital flow to the emerging markets. These reforms had focused on measures and rules for preventative savings which would have a negative impact on company's value.

At the center of the reforms in this period, was the maximization of shareholder value and the protection of the rights of the minority shareholders. The global crisis which began in 2008 had brought the topic of access to financial capital in other words corporate governance to the agenda of the regulators and has paved the way for the new laws and regulations both in the U.S. and in the European Union. This time, however, in the center of reforms was not the maximization of the share value, which had lost reputation, but rather the long-term value creation of the companies, their contribution to economic development and social welfare. (Ararat & Yurtoğlu, 2012)

As a natural consequence of this, the importance of the corporate governance has been gradually increased due to the financial crisis which becoming frequent in the last quarter of a century.

1.2.2. Globalisation

As a result of globalization, becoming easier to reach to the information regarding corporations which have been significant actors in the international economies and being strong of the corporate structures of these corporations has been made the companies preferable and investable from the point of investors.

As emphasized in the work of Ararat (2011), management of the joint stock company which traded has become a topic which has been in the spotlight in countries where the shareholders have been common and pension funds take a part in the shareholder structures. For some industries, globalization has been prerequisite for the profitability. Investment capital has also have a free movement. Ararat also states that the countries have to develop their capital policies with competitive approach. Due to the fact that the developing countries have a trouble when they lose the trust of investors, it should be necessary to attract and encourage the permanent capital, the long-term capital.

Analysing of post investment and return has been come into prominence in respect to transfer of funds from country to other country. The most important factor

that specifies the risk in respect of investors has been management system and regulations in the country in where will be invested. One of the most fundamental requirements for providing the conditions which requested by investors has been corporate governance applications.

1.2.3. Privatization Wave

Since 1980s, privatization practices which have become prevalent, have been indirectly influential on taking on a new meaning for corporate governance. After the state owned companies passing into the private ownership, have being canalized into the capital markets of the companies with the aim of funding a capital and starting of merger & acquisition activities has made a contribution to the importance of corporate governance principles. In order for the privatization activities to have a positive effect on economic growth, individuals which invested in privatized companies should know that their money will be evaluated by the managers of the institution in a reliable way. Therefore, funding of privatized companies is only possible with good corporate governance. (Keküllüoğlu, 2008)

The contribution of privatization to the economy has been possible with belief of investors to the management. In this regard, private investments need good corporate governance.

1.2.4. Corporate Scandals

"Some people call me on bad apple, Well I may be bruised but I still taste sweet. Some people call me on bad apple, But I may be the sweetest apple on the tree." David Wilcox

In the Achbar's work (2003), the documentary has begun with scandals which have been triggered a wide discussion about the lack of public control or big corporations. The President Bush claims that over the market of distrust, 95% of the business community have been honest, have uncovered all their assets, and are balanced despite being some bad apples. And the movie pointed out that better

media discussion about the base of operating rules of the corporate world was leapingly turned into a game: follow the leader.

Especially after the scandals, the media has begun to make propaganda regarding that USA has been still the most reliable investment area despite the becoming reality of scandals. Unfortunately, Increasing of the companies, which are called bad apples, has caused the fruit basket to be filled.

In the documentary, it has been mentioned that it has been the worst crisis of confidence in business, and also it has been emphasized that the corporations have been as a paradox institution that creates huge wealth but conduce to grand and often hidden damages.

In the work of Henle (2006), it has been asked this simple question: "Are recent corporate scandals a case of a few unethical business leaders (bad apples) or the general corporate culture and reward systems (bad barrels)? Is it the person or the situation?"

The opinion of mismanagement which has been considered one of the important reasons behind the scandals of corporations like Enron, WorldCom, Xerox in the U.S., Parmalat (Italy), Ahold (Netherlands) in European Union, Yangguangxia in China has brought the concept of good management which means corporate governance into the forefront. (Arslantas, 2012)

1.2.5. Debt and Equity Transactions

To be able to reach the goals, the corporations have to find the financial resources: debt or equity. In this circumstances, it has been of capital importance that the quality of management of the company from the point of the investors. In addition to this, the corporations have two options to be able to growth: organic and inorganic growth.

It has been pointed out in the work of Liu and Wang (2013) that mergers and acquisitions, which have been seen as growth strategies, have attracted the attention from developed economies along with emerging economies. The global

transactions of M&A opened a road to new record both in quantity and in scale in the 21st century. To be more precise, the M&A activity has become a notable way to search after resources and development. Liu and Wang (2013) also puts a question: "M&A, however, can really make a profit for the enterprise, or increase the shareholder's wealth?"

According to Uğur (2010), the well-conducted company has a value when it sold. It has been emerged that to keep value higher means more than a cash flow relationship, to increase the value has provide a benefit to the company before the acquisition. In other respects, if the competitive advantage for the companies is important, it has been well understood that corporate governance is an element which increase the value.

Research of Lips (2016) indicates that implementing the governance mechanisms to the companies could help to solve the problem regarding the negative impact of M&A's on financial performance of the companies.

1.3. THE CORPORATE GOVERNANCE PRINCIPLES

The work of Deloitte (2006) states that considering all interest relationship regarding shareholders and whole stakeholders' expectations, the management of a company should make an effort about the company's sustainable desired performance level and make satisfied all stakeholders in a balance. The management should focus on the principles regarding corporate governance to be able to reach to resources which is needed by the company.

These four basic principles of corporate governance has been associated with performance measurement and its development and in the meanwhile it has been expected to work in harmony with the social value.

Transparency, accountability, fairness and responsibility has been regarded as the principles of the corporate governance approaches in the world which have been generally accepted.

Capital Markets Board of Turkey has framed the Principles of corporate governance as follows: "The Principles mainly address publicly held joint stock companies. However, it is considered that other joint stock companies and institutions, active in private and public sector, may also implement these Principles. The implementation of the Principles is optional." (CBM, 2003)

1.3.1. Transparency

It has been a considerable amount of information as mandatory and voluntary in many countries, and this information have been compiled for publicly traded or private companies and in the sequel these information have been published to a broad range of users.

As set forth by OECD (2015), transparency, which can be defined as public disclosure, has been required on an annual basis at a minimum. The work of OECD also states that public disclosure has been an obligation on a semi-annual or quarterly basis, or even higher in case of material effects either adverse or favourable on the company. It should not be forgotten that voluntary disclosures have been made by the companies beyond mandatory disclosure requirements in response to market demand.

CBM shows an informative approach to transparency by indicating that the intent of public disclosure and transparency is to deliver information to the shareholders and investors which has been accurate, complete, understandable, easy-to analyse and also achievable with following statement. The informative approach to the companies has been expressed with the following words: "While disclosing information, the company is recommended to use most basic concepts and terminology and avoid using vague or indefinite expressions that would result in confusion. In cases when it may become absolutely essential to use technical terms, relevant explanations are to be provided in order to make such information comprehensible to everyone." (CBM, 2003)

In this direction, the authorities have fixed the rules oriented to transparency for the companies that have to create the information policy to disclosure to the public and standardize the information for the financial statements and other information.

1.3.2. Accountability

Accountability has been defined by CBM with these words: "Accountability means the obligation of the board of directors to account to the company as a corporate body and to the shareholders." (CBM, 2003)

Furthermore, in the work of OECD (2015) the principle accountability has been detailed by expressing that it has been required the continuous review of company's internal structure in order to ensure there has been a frame regarding accountability.

According to Romzek (2000), accountability has been constantly a challenge for the management of the company, and accountability has been understood as answerability for the performance of the company. (Romzek, 2000)

1.3.3. Responsibility

Responsibility has been defined by CBM (2003) that it has been compliance of whole operations which have been carried out on behalf the company with the regulation, articles of incorporation and internal directives of the company together.

1.3.4. Fairness

Fairness is an expression that to treat equally to all stakeholders of the management of the company. This principle refers to the protection of shareholder rights, including minorities and foreign partners, and the implementation of contracts.

The principle of fairness has been examined by OECD based on two fundamental articles: i) The framework of corporate governance should protect the

shareholders rights and make easier this rights to be able to used ii) The framework should make certain of treatment equally to all shareholders including minorities and foreign shareholders. It should be have a chance to get enough amends or indemnities of the shareholders in the event of a breach. (Deloitte, 2006)

1.4. DEVELOPMENT OF CORPORATE GOVERNANCE

1.4.1. Major Regulations on Corporate Governance in the World

1.4.1.1. Cadbury Report

It has been seen that the first studies which will be the basis of the corporate governance principles to be published by OECD had been started by a committee which had been gathered by London Stock Exchange and conducted by Sir Adrian Cadbury. (Atamer, 2006) The Committee has been identified the best practice codes for the British companies to comply and published the "Financial Aspects of Corporate Governance" in the year 1992. As Karayel (2006) stated that the study which had been prepared to improve the quality of the supervision and to bring the force corporate governance has been called Cadbury report.

When the Committee gathered in order to discuss the system of the companies regarding management and control, it has been specially dwelled upon the functions of reporting of the board, and upon the role of auditors. The outputs of the Committee's report has referred the principle of accountability of corporate governance. The Committee has expressed the aim of the report with the following words: "Our proposals do, however, seek to contribute positively to the promotion of good corporate governance as a whole. At the heart of the Committee's recommendations is a Code of Best Practice designed to achieve the necessary high standards of corporate behaviour. The London Stock Exchange intend to require all listed companies registered in the United Kingdom, as a continuing obligation of listing, to state whether they are complying with the Code and to give reasons for any areas of non-compliance. This requirement will enable shareholders to know where the companies in which they have invested stand in relation to the Code. The obligation will be enforced in the same way as all other listing obligations. This

may include, in appropriate cases, the publication of a formal statement of censure." (Cadbury Report, 1992)

1.4.1.2. Greenbury Report

Upon the concerns of shareholders and public regarding payment and compensations and benefits to the directors in the United Kingdom, the Greenbury Report has been prepared with the initiative of CBI in the year 1995. Greenbury According to Greenbury Report (1995), it has been agreed upon 5 main topics: accountability, full disclosure, alignment of director and interests of shareholders, responsibility, and improved performance of the company.

The aim of the report which is the real name has been "Director's Remuneration Report of a Study Group" to calculate and to determine the wages of the managers. Even the detailed provisions had been mainly prepared for big companies; these principles have been applicable to smaller companies. Report has been comprise of remuneration, disclosure and approval provisions, policy of remuneration, contracts of employment, and indemnity headings.

1.4.1.3. Hampel Report

A Committee has been established in respect to corporate governance in Britain in the year 1995. The Committee has selected the findings and the results of the reports which have been prepared by the committees of Cadbury and Greenbury as the baseline for their work and updated both reports bearing in mind that the problems which has been experienced in practice. The report which has been known as "Hampel Report" prepared by this committee and published as "Committee on Corporate Governance – Final Report" in the year 1998.

In the Hampel Report (1998), it has been framed the governance approach with this expression: "Good governance ensures that constituencies (stakeholders) with a relevant interest in the company's business are fully taken into account. In addition, good governance can make a significant contribution to the prevention of

malpractice and fraud, although it cannot prevent them absolutely." (Hampel Report, 1998)

According to report, investor protection should be paid strict attention to and it should be targeted to support the high standards of corporate governance. Furthermore, the companies listed on the stock exchange should be protected. (Sancar, 2015)

1.4.1.4. The OECD Principles of Corporate Governance

The principles has been prepared upon the requests of the OECD Council which has been at the ministerial level on the 27-28 April 1998, together with national governments, relevant national organizations and the private sector in order to develop set of standards and guiding principles regarding corporate governance from the OECD. In line with developments in recent years, the principles have been revised by the OECD Steering Group regarding Corporate Governance and some amendments and additions have been made. (Arslantas, 2012)

Arslantaş (2012) emphasizes that there has been no single model of corporate governance. OECD has established some common components which underlie corporate governance. In the report, which has been prepared by OECD (2004), it has been expressed that this principles have been a dynamic instrument, which recommend non-binding standards and best practices. It has been also stated that the principles can be customised to specific conditions of on the basis of countries and regions. Due to the fact that, to be able to comply with the best principles, many countries have re-structured and published their legislation.

Although the principles are not binding, it is an important guide for governments and companies to review their own management understanding and to implement the standards set. In the preface of the study, it is suggested that countries should prepare the codes with the principle of "one size does not fit all". (TKYD, 2019)

It could be summarized the OECD Principles under six main headings:

- a) Forming the basis regarding an effective corporate governance framework
- b) Shareholders' rights and key ownership functions
- c) The fairly treatment of shareholders
- d) Stakeholders' role in corporate governance
- e) Transparency and public disclosure
- f) Board of directors' responsibility

2015 edition of OECD work takes in consideration account developments in both the corporate and financial sectors that may affect the efficiency and interest of corporate governance policies and applications.

In the 2015 version of the principles, the Council has a recommendation on corporate governance. According to this, the Council has outlined the advices as follows: "i) for members and non-members: having fall in line with the recommendation and taking into account of the principles, ii) dissemination of the recommendation by secretary general, iii) dissemination the recommendation by parties which consisting of members and non-members, iv) inviting non-members to take in consideration and abide by to the recommendation v) establishing the Committee regarding corporate governance in order to follow up implementing steps. (OECD, 2015)

1.4.1.5. Sarbanes Oxley Act

Bertus et al. (2008) state that it has been occurred the bankruptcy filings which break a record in the U.S. in the last past decade. Whereas many of them have been occurred in relation with situation of the market, many of them regarding fraud. Irrespective of reasons of these insolvencies, after the scandals like Enron and WorldCom, it had been constituted a consensus among policymakers and observers of industries regarding existing applications of management and lack of supervision of government.

Especially after the financial scandals of major and well-known companies such as Enron, WorldCom and Xerox in the U.S., Public Company Accounting Reform and Investor Protection Act, in other words Sarbanes Oxley Act, has been signed in July 2002 for public companies with the aim of improving the controls on financial reporting of companies and also supporting the effective corporate management. (Arslantas, 2012)

Sarbanes Oxley Act which has been passed by Senate and House of Representatives of the United States of America in Congress gathered with the object of protecting investors by improving the accuracy and reliability of corporate disclosures made in compliance with the securities laws, and for other purposes. (The U.S. Congress, 2002)

As pointed out in the article of Bertus et al. (2008) apart from other requirements, it has been demanded by the Act that companies to have audit committees which have been comprised of independent directors and financial officers in order to confirm that the financial statements of the companies have been correct. Moreover, with the Sarbanes-Oxley Act it has been created the Public Accounting Oversight Board with the objective to audit, standardize, investigate accounting firms in their roles as auditors.

The impact of Sarbanes-Oxley Act has been construed by Clark (2005) with the following words: "In the immediate aftermath of SOX, investors, businessmen, and government officials in other countries were sometimes inclined to shake their heads at the U.S. scandals and the ensuing regulation, which often struck them as wildly overzealous (and annoyingly costly when it purported to reach foreign companies doing business in or having stock listings in the U.S.). But eventually fraud and scandals were rediscovered to be international phenomena. After the outpouring of news stories about the Parmalat and Royal Dutch/Shell companies, corporate governance reform came to be seen as yet another example of a global issue." (Clark, 2005)

Clark (2005) also states that the changes which has been related Sarbanes Oxley might be grouped under three headings: changes regarding audit, changes regarding board of management, and changes regarding disclosure and accounting rules. Furthermore, some changes had given rise to increased tasks and liabilities for key corporate actors. Other changes has been atmospherically relevant to the changes made in reply to the big scandals.

1.4.2. Major Regulations on Corporate Governance in Turkey

Discourse of corporate governance has been appeared in Turkey in early 2000s.

1.4.2.1. Capital Markets Board of Turkey

In July 2003, The Capital Markets Board of Turkey (CBM) has published the principles of corporate governance for the public joint stock companies listed on the stock exchange on a voluntary basis. Afterwards, the principles has been revised in line with the changes made by OECD regarding corporate governance.

CBM Corporate Governance Principles has been comprised of four sections: shareholders, public disclosure and transparency, stakeholders, and the board of directors.

In the work of CMB, it has been emphasized that, the Principles has been established in parallel with the current practises in the world. These principles have been prepared as a result of contributions of all high-level bodies.

CBM has framed the governance approach as follows: "The Principles mainly address publicly held joint stock companies. However, it is considered that other joint stock companies and institutions, active in private and public sector, may also implement these Principles. The implementation of the Principles is optional. However, the explanation concerning the implementation status of the Principles, if not detailed reasoning thereof, conflicts arising from inadequate implementation of these Principles, and explanation on whether there is a plan for change in the

company's governance practices in the future should all be included in the annual report and disclosed to public." (CBM, 2003)

With these principles, it has been aimed to be able to carry on the activity at the international standards for all joint stock companies and develop management approach that will contribute to utilise easier and cheaper cost from the international financial resources.

1.4.2.2. Turkish Industry & Business Association of Turkey

Turkish Industry and Business Association (TÜSİAD) has established the working group regarding corporate governance in the year 1999 with the decision of the High Advisory Council. Furthermore, TÜSİAD has also published the OECD corporate governance principles by translating into Turkish in the year 2000.

The first corporate governance practices in Turkey, has been brought into force by TÜSİAD with the name of "*The Corporate Governance Code of Best Practice: Composition and Functioning of the Board of Directories*" in the year 2002 when the CMB has not published the principles yet. (Arslantaş, 2012)

This report has been capital of importance in terms of being an effort and demand of business world, not a force of the state in Turkey. (Arslan, 2018)

1.4.2.3. Corporate Governance Association of Turkey

The people who prepared the report of TÜSİAD has led the drive for the establishment of Corporate Governance Association of Turkey (TKYD).

TKYD, which has been established in the year 2003, is a non-profit organization in an effort to develop and promote loyalty to corporate governance principles and guidelines in Turkey. Due to the fact that, the organization defines its mission as leading, guiding and supporting the adaptation and implementation of corporate governance principles in Turkey and the region. (TKYD, 2019)

TKYD has been acting with the aim of being the point of reference for all those seeking guidance on corporate governance.

In order to create awareness regarding corporate governance and promote good practices, TKYD has prepared a project, which includes companies in the Index: Corporate Governance Awards. The awards has been given the companies in four different categories.

It can be found below the table displaying the summary of categories of awarded companies for the year 2018.

Table 1.2: Institutions with corporate governance awards (2018)

| Highest Corporate Governance Rating (publicly traded in Borsa İstanbul) | | |
|---|--|--|
| 1- Aksa Akrilik | | |
| 2- Doğuş Otomotiv | | |
| 3- TAV Havalimanları | | |
| Highest Corporate Governance Rating (private companies) | | |
| 1- Sütaş | | |
| Highest Corporate Governance Rating (NGO) | | |
| 1- Darüşşafaka Cemiyeti | | |
| 2- Türkiye Eğitim Gönüllüleri Vakfı | | |
| 3- Türkiye İç Denetim Enstitüsü | | |
| Company which most increased the score | | |
| 1- AG Anadolu Holding | | |

Source: TKYD

1.4.2.4. 6102: The New Turkish Commercial Code (TCC)

The new Turkish Commercial Code No. 6102 which was enacted in the year 2012 has largely eliminated the gaps in legislation regarding corporate governance, in particular as it includes provisions to facilitate the support of the CMB's corporate

governance principles and legal regulations. The new TCC has regarded corporate governance as the fundamental approach of the code. (Arslantas, 2012)

As stated in the work of Deloitte (2007), it is a reform step that the TCC accepts corporate governance in terms of all joint-stock companies and assures it with mandatory provisions.

A new page has been opened in the Turkish economy with NTCC, which has been formed on the principles of corporate governance, transparency and reliability.

In the work of PWC (2011), it has been stated that the New Commercial Law will redefine the rules regarding governance in commercial area in Turkey, and will help reach Turkey to the next level with a modern in terms of principles of governance. The work also emphasizes that adoption of principles of corporate governance will enhance the strength of global competitive of Turkish companies.

1.4.2.5. Borsa Istanbul Corporate Governance Index (XKURY)

Another important development, which has been exhortative for corporate governance in Turkey, has been the establishing of the Corporate Governance Index within the structure of Istanbul Stock Exchange (BIST). (Pamukçu, 2011)

As set forth by Borsa İstanbul (2019), by establishing the BIST Corporate Governance Index (XKURY), it has been aimed to measure the price and performances of return of the companies which have been publicly traded in Borsa İstanbul with a governance score of minimum 7 over 10. The rating score has been determined by the rating agencies which have been authorized by CMB as a result of the evaluation of the companies' compliance with the principles of corporate governance. It can be found the ratings of the companies subject to Governance Index in the Public Disclosure Platform (PDP).

CBM has identified the position of the rating agencies regarding corporate governance with this statement: "Within the framework of the regulations to be enforced by the CMB, the rating institutions conducting rating of corporate

governance will determine the implementation status of the Principles." (CBM, 2003)

It can be found below the table displaying the rating agencies licenced by Capital Markets Board in Turkey.

Table 1.3: Corporate Governance Rating Agencies

| 1 | Saha Kurumsal Yönetim ve Derecelendirme Hizmeti A.Ş. | | | | | | | |
|---|--|--|--|--|--|--|--|--|
| 2 | Kobirate Uluslararası Kredi Derecelendirme ve Kurumsal Yönetim | | | | | | | |
| | Hizmetleri A.Ş. | | | | | | | |
| 3 | JCR Avrasya Derecelendirme A.Ş. | | | | | | | |
| 4 | DRC Derecelendirme Hizmetleri A.Ş. | | | | | | | |

Source: CMB

The scores of rating show a relationship of the compliance with the corporate governance principles of the companies. Due to the fact that, if the score is close to "1" it means that the company is weak in implementing the principles. Along the same line, if the score is close to "10", the company meet the requirements of corporate governance principles better.

According to communiqué of CMB, corporate governance ratings has been comprised of five main sections which are shareholders public disclosure and transparency, stakeholders, board of directors and the evaluation of the overall.

The sections evaluated by rating agencies has been summarized in the below table.

Table 1.4: Sections of corporate governance rating

| Shareholders | Public disclosure | Stakeholders | Board of directors |
|--------------|-------------------|--------------|--------------------|
| 25% | 25% | 15% | 35% |

Source: (Saha Rating, 2019)

The compliance of corporate governance principles has been outlined by CMB. In this sense, the principles, which have been adopted or not adopted by the company are need to explained. In addition to this, it has been necessary to give information regarding reasons in case of not applying the principles.

It might be seen below the requirements for each part to be included in the mentioned compliance report.

For shareholders section:

- Shareholder relations department: It is necessary to explain whether the department has been established or not. If it has been established, the manager of the department and the names of staff, main operations of the department, number of applications which have been made to the department and the responses given to investors have been have to explained.
- Rights of shareholders: Companies have to explain whether there have been information requested by the shareholders from the company, and also how the request of information has been evaluated. Furthermore, it has been necessary to explain whether there has been a special auditor requested by the shareholders.
- Shareholders' Meeting Information: In this section it has been evaluated that how many meetings took place in the related period.
 It is also expected to explain that how shareholders invited to meetings, where and what kind of information had been available to the shareholders before the meetings.
- O Voting rights and minority shareholders: In this section, it has been expected to disclose whether there have been a privileged rights on voting in the articles of association of the companies. Furthermore, it has been necessary to disclose whether the minority shares have been represented in management of the company.
- Dividend policy: In this section, it has been specified that whether the existence of any privileged rights on distribution of dividends in

- the articles of association of the company. Moreover, the policy of dividend of the company has been disclosed to public.
- Shares' transfer: In this part, it has been disclosed that information regarding the existence of provisions which cause to restrict transfer of shares if available and the reasons.

For public disclosure and transparency section;

- Company information disclosure policy: The disclosure policy has been explained in this section. Furthermore, if there have been any information which had been not to disclosed will be explained with the reasons.
- Website of the company: In this part, it has been expected from the company to explain whether there has been a website, the web address of the company, whether information mentioned in CMB governance principles, reasons for not having a website.
- Annual reports of companies: In this section, it has been explained
 whether the information which has been listed in governance
 Principles included or not, and if not, what is the missing
 information in the annual reports of the company.
- Insiders of companies: In this section, it has been explained by the company that whether there have been individuals which reach the confidential business information in the company. The company has provided the list of insiders by the company.

For stakeholders section;

O Informing stakeholders: In this section, it has been explained by the company that whether the stakeholders have been provided with the information regarding the issues related to themselves, ways they have been informed, and the reasons if the stakeholders have been not informed.

- O Participation of the stakeholders in the management: The company has disclosed that kind of actions which have been taken for the participation of Stakeholders' in management, and the company has also explained whether a model has been established regarding this issue in this section.
- O Human resources policy: In this section, the company has disclosed the main principles of the policy regarding human resources of the company, the name and duties and powers of the representative of the responsible employees. Furthermore, it has been expected the information from the company that whether there have been any complaints from employees regarding discrimination.
- Relations with the suppliers and clients: The company discloses the services carried out by the company in this section.
- Social responsibility: The company provides the information on activities regarding the environment, region, and the public.

For board of directors section;

- The structure of board of directors: It has been provided with the information about the composition of board of directors such as executive, non-executive and independent members. If the chairman of the board has also been the executive member of the board, the company has to explained the reasons.
- Qualifications of board members: The company provides the information whether any training and adaptation program have been applied for board members according to CMB Corporate Governance Principles.
- The mission, vision and strategic goals of the company: In this section, it will be disclosed whether board of directors has determined and disclosed the mission/vision of the company, what the mission/vision is if it has been determined. The

- company provides the information regarding the strategic goals of the company and implementation process of the goals.
- o Internal control and risk management mechanism: The company provides the information whether internal control and risk management mechanism has been established by the board, and reasons for not establishing the mechanism. If the mechanism has been established, it has been expected to disclose the efficiency of the mechanism.
- The number, structure of committees in the company: In this section, the company provides the information regarding the committees which have been established in the company, the chairman and members of the committees and their qualifications. Furthermore, if a board member serves on a more than one committee, the reason for this issue has to be explained.
- Remuneration of the board of directors: In this part, compensations and wages which have been granted to the board members and the criteria which has been used in order to determine them have been disclosed by the company. In addition to this, the company provides the information whether any loans granted to the board of directors or borrowing loans from the executives.

The corporate governance rating methodology of rating companies is based on the corporate governance principles issued by CMB. It has been worthy noting that, it has been necessary to disclose the information whether the principles have been applied by the company in the rating report. If not, the conflicts of interests which have been arisen from the mentioned reasons have to be explained in the report.

Corporate Governance Index started to operation on August 31, 2007 with the start-at value of 48,082.17. The value of the index has been 82,254.42 as of 3 May 2019.

The Governance Index (XKURY), which has started with five companies, has been comprised of 47 companies as of May 2019.

The table below has been displaying the companies, which has been included in the Index.

Table 1.5: Corporate Governance Index (XKURY)

| 1 | AGHOL | AG Anadolu Grubu Holding A.Ş. | | |
|----|-------|---|--|--|
| 2 | AKSGY | Akiş Gayrimenkul Yatırım Ortaklığı A.Ş. | | |
| 3 | AKMGY | Akmerkez Gayrimenkul Yatırım Ortaklığı A.Ş. | | |
| 4 | AKSA | Aksa Akrilik Kimya Sanayii A.Ş. | | |
| 5 | ALBRK | Albaraka Türk Katılım Bankası A.Ş. | | |
| 6 | ANSGR | Anadolu Anonim Türk Sigorta Şirketi | | |
| 7 | AEFES | Anadolu Efes Biracılık ve Malt Sanayii A.Ş. | | |
| 8 | ARCLK | Arçelik A.Ş. | | |
| 9 | ASELS | Aselsan Elektronik Sanayi ve Ticaret A.Ş. | | |
| 10 | AYGAZ | Aygaz A.Ş. | | |
| 11 | CCOLA | Coca-Cola İçecek A.Ş. | | |
| 12 | CRDFA | Creditwest Faktoring A.Ş. | | |
| 13 | DOHOL | Doğan Şirketler Grubu Holding A.Ş. | | |
| 14 | DGGYO | Doğuş Gayrimenkul Yatırım Ortaklığı A.Ş. | | |
| 15 | DOAS | Doğuş Otomotiv Servis ve Ticaret A.Ş. | | |
| 16 | ENKAI | Enka İnşaat ve Sanayi A.Ş. | | |
| 17 | EREGL | Ereğli Demir ve Çelik Fabrikaları T.A.Ş. | | |
| 18 | GARFA | Garanti Faktoring A.Ş. | | |
| 19 | GRNYO | Garanti Yatırım Ortaklığı A.Ş. | | |

| 20 | GLYHO | Global Yatırım Holding A.Ş. | | |
|----|-------|---|--|--|
| 21 | HLGYO | Halk Gayrimenkul Yatırım Ortaklığı A.Ş. | | |
| 22 | HURGZ | Hürriyet Gazetecilik ve Matbaacılık A.Ş. | | |
| 23 | IHEVA | İhlas Ev Aletleri İmalat Sanayi ve Ticaret A.Ş. | | |
| 24 | IHLAS | İhlas Holding A.Ş. | | |
| 25 | LOGO | Logo Yazılım Sanayi ve Ticaret A.Ş. | | |
| 26 | MGROS | Migros Ticaret A.Ş. | | |
| 27 | OTKAR | Otokar Otomotiv ve Savunma Sanayi A.Ş. | | |
| 28 | PRKME | Park Elektrik Üretim ve Madencilik Sanayi ve Ticaret A.Ş. | | |
| 29 | PGSUS | Pegasus Hava Taşımacılığı A.Ş. | | |
| 30 | PETUN | Pınar Entegre Et ve Un Sanayii A.Ş. | | |
| 31 | PINSU | Pınar Su ve İçecek Sanayi ve Ticaret A.Ş. | | |
| 32 | PNSUT | Pınar Süt Mamülleri Sanayii A.Ş. | | |
| 33 | SKBNK | Şekerbank T.A.Ş. | | |
| 34 | TATGD | Tat Gıda Sanayi A.Ş. | | |
| 35 | TAVHL | Tav Havalimanları Holding A.Ş. | | |
| 36 | TOASO | Tofaş Türk Otomobil Fabrikası A.Ş. | | |
| 37 | TRCAS | Turcas Petrol A.Ş. | | |
| 38 | TUPRS | Tüpraş – Türkiye Petrol Rafineleri A.Ş. | | |
| 39 | PRKAB | Türk Prysmian Kablo ve Sistemleri A.Ş. | | |
| 40 | TTKOM | Türk Telekominikasyon A.Ş. | | |
| 41 | TTRAK | Türk Traktör ve Ziraat Makineleri A.Ş. | | |
| 42 | GARAN | Türkiye Garanti Bankası A.Ş. | | |
| 43 | HALKB | Türkiye Halk Bankası A.Ş. | | |
| 44 | TSKB | Türkiye Sınai Kalkınma Bankası A.Ş. | | |
| 45 | SISE | Türkiye Şişe ve Cam Fabrikaları A.Ş. | | |
| 46 | VESTL | Vestel Elektronik Sanayi ve Ticaret A.Ş. | | |
| 47 | YKBNK | Yapı ve Kredi Bankası A.Ş. | | |

Source: www.kap.org.tr

It might be regarded as the corporate governance rating has been qualitative activity that has been evaluation of the quality of management considering the stakeholders' rights. Corporate governance rating has been supporting taking right decision of the investors and reaching the necessary and correct information about the companies. (Arslan, 2018)

2. SECOND CHAPTER

2.1. LITERATURE REVIEW

Studies regarding corporate governance have increased in the last quarter of the century. The studies, which has been prepared with the aim of analysing the relationship of corporate governance applications and firm performance or stock performance, have different results. The main reason for this the corporate governance applications varying from country to country in related to market conditions.

In this chapter, it has been touched on the studies regarding corporate governance in national and the international area.

2.1.1. Corporate Governance Studies in the International Area

In the work of Drobetz et al. (2003), it has been analysed that whether has been a relationship between the corporate governance rating and company value in Germany. The result of this study shows that there has been a positive relationship between the rating score and company value. It has been determined that having a higher rating score could be investment strategy that investing in high scored firms and shorting low scored firms would enable to earn abnormal returns of around 12 percent on an annual basis.

The work of Gompers, Ishii and Metrick (2003) analyse the relationship between shareholders right and firm value. To be able to analyse this, they had formed a governance index by using the incidence of 24 rules of corporate governance regarding 1500 firms in the year 1990s. The result of this study support

that companies with shareholder rights, which have been stronger, have higher company value and higher financial performances.

Bauer et al. (2003) analyse impact of good corporate governance on common stock returns and firm value in Europe by using Deminor Corporate Governance Ratings for companies FTSE Eurotop 300. Based on the approach of Gompers and et al. (2003), it has been formed a portfolios consisting of well-governed and notwell-governed companies. The results show that there has been a negative relationship between corporate governance and valuation.

For the Canadian market, Klein, Shapiro and Young (2005) analyse the relationship between newly-released index of corporate governance and firm value, as quantified by Tobin's q. For this study, it has been built a sample with 263 Canadian firms. The results show that governance has been important in Canada despite the fact that there has been no evidence that governance index affects company value.

The work of Ammann et al. (2010) investigate the relationship between firm value and firm-level corporate governance. Throughout, in this study it has been used a large dataset which includes 22 developed countries for the period starting from 2003 to 2007 from Governance Metrics International. The relationship has been analysed by constructing two alternative additional governance indices with equal weights and one index arisen from a main constituent analysis. The results show a strong positive relation between firm-level governance and valuation. The results show a strong positive relation between firm-level governance and valuation.

For the Pakistani market, the work of Bhat et al. (2018) examines that how instruments of corporate governance affect firm value in Pakistan. By using state and non-state owned companies it has been analysed whether the impact on corporate governance on firm valuation with having different nature of ownership. Their results clearly demonstrate that independence board has a positive relationship with firm valuation for only state owned companies.

Brown and Caylor (2005) concludes that seven provision related to corporate governance fully drives the relation between governance score and firm value. In this study, they create a Gov-Score, a summary governance measure both internal and external governance and demonstrate that there has been a relationship governance score and firm valuation.

Aggarwal (2013), investigate that whether corporate governance practices affects company's performance regarding 20 companies within the S&P CNX Nifty 50 Index for the period starting from the year 2010 to year 2012. It has been concluded that the corporate governance practices have a positive impact on the firm performance.

2.1.2. Corporate Governance Studies in Turkey

Otluoğlu et al. (2016) evaluate what role board diversity should impact on financial performance. By investigating Turkish market, they have used the sample consist of the companies listed on Borsa İstanbul (BIST) 100 Index. In this study, the results indicates that female board membership affects the ROE and Tobin's q.

The purpose of the work of Yenice and Dölen (2013) is to measure whether governance rating affects market value of the companies, which have been listed in governance index in Turkey. To be able to analyse the effect, they use the rating scores of the companies for the period starting from 2007 to 2011. Comparing the stock prices of the companies between 30 days prior and 30 days after the disclosure date of the scores, it has been proved that there has been a significant relation between scores and market values.

Kula and Baykut (2014) practiced the effect of the corporate governance scores on market values of companies by cross-section regression analysis of 47 companies in the governance index. The study has been enriched by profitability performance, total equity and sectoral breakdown. The results support the hypothesis that well-governed companies have higher market valuation and better financial performance.

The research has been conducted by Ararat et al. (2017) presents empirical evidence on aims at the effect of corporate governance on firm value and profitability. By building a Governance Index which comprised of subindices in terms of board structure, board procedure, board procedure, disclosure, ownership and shareholder rights, it has been analyzed the impact of governance applications on share value. The study demonstrates that well-governed applications at firm-level positively affect the share prices of the companies.

In the work of Sakarya (2011), the relationship between the annoucement of the rating score of the companies, which traded in XKURY Index, and their stock returns are examined for the year 2009. Within the scope, it has been used event study method and examined 11 companies which has been traded for the first time in the XKURY Index. As a result of the study, it has been determined that there have been a strong positive relationship between the annoucement of rating score and stock returns.

Yavuz et al. (2014) analysed the occurrence of the abnormal stock returns of the companies, which have been included for the first time in XKURY Index for the years 2012 and 2013. In the direction of this scope, it has been used the stock returns at the date of Index entry and 10 days after of entry date. To be able to observe the abnormal stock returns, it has been developed various hypotheses and examined with event study method. According to results of the study, there has not been statistically significant. Some days it has been observed a negative trend, some days positive.

3. THIRD CHAPTER

The aim of this study is to examine the impacts of corporate governance applications on share prices and hence on company value. Having regard to the studies in literature, it has been aimed to contribute to the academic studies with the quantative and econometric analysis. In accordance with this purpose, the model of the research and method of the analysis have been explained in the following sections.

3.1. DATA AND SAMPLE DESCRIPTION

In order to analyse the impact of corporate governance on company valuation in this study, it will be used the financial data of the public joint stock companies which have been traded in Borsa İstanbul starting from the year 2016 to the year 2018. Due to being possible to reach the financial data of the publicly traded joint stock company, the study covers only companies, which have been publicly traded in financial markets of Turkey. To be able to measure of this governance effect on the company, it will be compared two group as the companies, which have been traded in Borsa İstanbul and subject to BIST Corporate Governance Index within Borsa İstanbul, and the companies which have been traded in BIST100 Index. The comparison level has been determined among the companies that have corporate governance score and have no corporate governance rating and have not met these requirements in BIST100 for the last three years.

The companies to be used in this study has been displayed in the following tables.

Table 3.1: BIST100 Companies Subject to BIST Governance Index

| | BIST Governance Index | 2016 | 2017 | 2018 |
|----|---|-------|-------|-------|
| 1 | Aksa Akrilik Kimya Sanayi A.Ş. | 95.98 | 96.32 | 97.02 |
| 2 | Anadolu Efes Biracılık ve Malt Sanayii A.Ş. | 95.77 | 95.77 | 95.83 |
| 3 | Arçelik A.Ş. | 95.23 | 95.23 | 95.35 |
| 4 | Aselsan Elektronik Sanayi ve Ticaret A.Ş. | 91.51 | 92.04 | 92.04 |
| 5 | Coca Cola İçecek Sanayi A.Ş. | 94.48 | 94.52 | 94.52 |
| 6 | Doğan Şirketler Grubu Holding A.Ş. | 93.98 | 94.06 | 94.18 |
| 7 | Doğuş Otomotive Servis ve Ticaret A.Ş. | 94.20 | 96.30 | 96.41 |
| 8 | Enka İnşaat ve Sanayi A:Ş. | 91.75 | 91.79 | 91.80 |
| 9 | Ereğli Demir ve Çelik Fabrikaları T.A.Ş. | 90.20 | 92.20 | 92.70 |
| 10 | Migros Ticaret A.Ş. | 95.01 | 95.77 | 95.81 |

| | BIST Governance Index | 2016 | 2017 | 2018 |
|----|--|-------|-------|-------|
| 11 | Otokar Otomotiv ve Savunma San ve Tic. A.Ş. | 93.19 | 93.32 | 91.03 |
| 12 | Park Elektrik Üretim Madencilik Sanayi ve Ticaret A.Ş. | 90.79 | 90.79 | 90.01 |
| 13 | Pegasus Hava Taşımacılığı A.Ş. | 91.70 | 92.50 | 94.00 |
| 14 | TAV Havalimanları Holding A.Ş. | 95.38 | 96.17 | 96.25 |
| 15 | TOFAŞ Türk Otomobil Fabrikası A.Ş. | 91.38 | 91.48 | 92.04 |
| 16 | Tüpraş - Türkiye Petrol Rafinerileri A.Ş. | 94.15 | 94.67 | 94.81 |
| 17 | Türk Telekominikasyon A.Ş. | 90.24 | 91.75 | 92.87 |
| 18 | Türk Traktör ve Ziraat Makineleri A.Ş. | 91.49 | 92.13 | 92.16 |
| 19 | Türkiye Şişe ve Cam Fabrikaları A.Ş. | 94.41 | 94.83 | 95.28 |
| 20 | Vestel Elektronik Sanayi ve Ticaret A.Ş. | 93.60 | 94.86 | 95.50 |
| 21 | AG Anadolu Grubu Holding A.Ş. | 91.88 | 92.01 | 95.28 |
| 22 | Akiş Gayrimenkul Yatırım Ortaklığı A.Ş. | 94.39 | 94.90 | 95.36 |
| 23 | Akmerkez Gayrimenkul Yatırım Ortaklığı A.Ş. | 92.24 | 93.74 | 93.74 |
| 24 | Anadolu Anonim Türk Sigorta Şirketi | 93.00 | 93.00 | 95.11 |
| 25 | Aygaz A.Ş. | 93.61 | 93.64 | 93.99 |
| 26 | Creditwest Faktoring A.Ş. | 84.46 | 85.26 | 86.04 |
| 27 | Doğuş Gayrimenkul Yatırım Ortaklığı A.Ş. | 89.25 | 91.70 | 92.80 |
| 28 | Garanti Faktoring A.Ş. | 92.60 | 93.21 | 93.90 |
| 29 | Garanti Yatırım Ortaklığı A.Ş. | 94.00 | 94.30 | 94.50 |
| 30 | Global Yatırım Holding A.Ş. | 89.90 | 90.52 | 90.60 |
| 31 | Halk gayrimenkul Yatırım Ortaklığı A.Ş. | | 92.35 | 92.74 |
| 32 | Hürriyet Gazetecilik ve Matbaacılık A.Ş. | 92.79 | 91.27 | 92.67 |
| 33 | İhlas Ev Aletleri İmalat Sanayi ve ticaret A.Ş. | 80.82 | 81.99 | 83.75 |
| 34 | İhlas Holding A.Ş. | 80.46 | 81.45 | 83.32 |
| 35 | Logo Yazılım Sanayi ve Ticaret A.Ş. | 91.24 | 90.83 | 91.14 |
| 36 | Pınar Entegre Et ve Un Sanayii A.Ş. | 92.64 | 92.88 | 93.09 |
| 37 | Pınar Su Sanayi ve Ticaret A.Ş. | 93.80 | 94.60 | 95.00 |
| 38 | Pınar Süt Mamülleri Sanayii A.Ş. | 92.37 | 92.62 | 92.71 |
| 39 | TAT Gıda Sanayi A.Ş. | | 90.78 | 93.08 |
| 40 | Turcas Petrol A.Ş. | 93.50 | 94.86 | 95.70 |

| | BIST Governance Index | 2016 | 2017 | 2018 |
|----|--|-------|-------|-------|
| 41 | Türk Prysmian Kablo ve Sistemleri A.Ş. | 90.92 | 91.13 | 91.76 |

Source: www.kap.org.tr/tr/endeksler

Table 3.2: BIST100 Companies Having No Governance Score

| | BIST100 Companies | | | |
|----|--|--|--|--|
| 1 | Afyon Çimento Sanayi T.A.Ş. | | | |
| 2 | Aksa Enerji Üretim A.Ş. | | | |
| 3 | Alarko Gayrimenkul Yatırım Ortaklığı A.Ş. | | | |
| 4 | Alarko Holding A.Ş. | | | |
| 5 | Anadolu Cam Sanayii A.Ş. | | | |
| 6 | Beşiktaş Futbol Yatırımları Sanayi ve Ticaret A.Ş. | | | |
| 7 | Bim Birleşik Mağazalar A.Ş. | | | |
| 8 | Deva Holding A.Ş. | | | |
| 9 | Ege Endüstri ve Ticaret A.Ş. | | | |
| 10 | EİS Eczacıbaşı İlaç, Sınai ve Finansal Yatırımlar Sanayi ve Ticaret A.Ş. | | | |
| 11 | Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş. | | | |
| 12 | Fenerbahçe Futbol A.Ş. | | | |
| 13 | Ford Otomotiv A.Ş. | | | |
| 14 | Galatasaray Sportif Sınai ve Ticari Yatırımlar A.Ş. | | | |
| 15 | Goodyear Lastikleri T.A.Ş. | | | |
| 16 | Göltaş Göller Bölgesi Çimento Sanayi ve Ticaret A.Ş. | | | |
| 17 | Gözde Girişim Sermayesi Yatırım Ortaklığı A.Ş. | | | |
| 18 | GSD Holding A.Ş. | | | |
| 19 | Gübre Fabrikaları A.Ş. | | | |
| 20 | Hacı Ömer Sabancı Holding A.Ş. | | | |
| 21 | İpek Doğal Enerji Kaynakları Araştırma ve Üretim A.Ş. | | | |
| 22 | İş Gayrimenkul Yatırım Ortaklığı A.Ş. | | | |
| 23 | İttifak Holding A.Ş. | | | |

| | BIST100 Companies | | | |
|----|---|--|--|--|
| 24 | Kardemir Karabük Demir Çelik Sanayi ve Ticaret A.Ş. | | | |
| 25 | Karsan Otomotiv Sanayi ve Ticaret A.Ş. | | | |
| 26 | Kartonsan Karton Sanayi ve Ticaret A.Ş. | | | |
| 27 | Koç Holding A.Ş. | | | |
| 28 | Kordsa Teknik Tekstil A.Ş. | | | |
| 29 | Koza Altın İşletmeleri A.Ş. | | | |
| 30 | Koza Anadolu Metal Madencilik İşletmeleri A.Ş. | | | |
| 31 | Metro Ticari ve Mali Yatırımlar Holding A.Ş. | | | |
| 32 | Netaş Telekominikasyon A.Ş. | | | |
| 33 | ODAŞ Elektrik Üretim Sanayi Ticaret A.Ş. | | | |
| 34 | Petkim Petrokimya Holding A.Ş. | | | |
| 35 | Soda Sanayii A.Ş. | | | |
| 36 | Tekfen Holding A.Ş. | | | |
| 37 | Trakya Cam Sanayi A.Ş. | | | |
| 38 | TURKCELL İletişim Hizmetleri A.Ş. | | | |
| 39 | Tümosan Motor ve Traktör Sanayi A.Ş. | | | |
| 40 | Türk Hava Yolları A.O. | | | |
| 41 | Ülker Bisküvi Sanayi A.Ş. | | | |
| 42 | Zorlu Enerji Elektrik Üretim A.Ş. | | | |

Source: www.kap.org.tr/tr/endeksler

As explained in the previous section in this study, there have been 47 companies in Governance Index as of May 2019. It should be noted that there have been 100 companies in the BIST100 Index. Nevertheless, as required by the legislation by the management of Borsa İstanbul there have been constituent changes in the BIST100 Index on a quarterly basis. The shares of the companies have been add or removed by the management of Borsa İstanbul on a quarterly basis.

Since the study covers the period starting from the year 2016 to the year 2018, it has been determined that there have been 83 companies which permanently traded in BIST100 Index within this scope. It should be noted that the companies which had been included in BIST100 or excluded from BIST100 Index in any three-months period, have been eliminated due to the study period starting from the year 2016 to the year 2018. Furthermore, it has been observed that there have been 41 companies both in BIST100 Index and subject to XKURY during the period of 2016 to 2018. Also, it has been observed that there have been 42 companies only traded in BIST100 Index and have not governance score. Owing to the fact that, it has been a three-year research, the data to be used in the analysis of 83 companies will form a 249 sample size. It should be emphasized that the banks have been left it out of the scope. The data of the companies in the sample have been obtained from Bloomberg financial database, which covers the financials of whole publicly traded companies, and annual report of the companies.

As pointed out in the work of Vafaei et. al (2015), accounting-based, market-based and cash-based criterias can be used to measure the firm performance. Considering the literature, it has been conceived that accounting-based, market-based and cash-based criterias can be used as value indicators. In this regard, it has been used three dependent variables in order to measure the effects of corporate governance on company valuation from the point of accounting-based, market-based and cash-based value criterions.

The return on equity (ROE) which has been regarded as accounting-based measure has been the criteria predicated on the past performance of the company. ROE demonstrates the returns get of the shareholders against the capital invested. Tobin's q (Q) which has been regarded as market-based measure, it has been demonstrated the company's current and potential performance Haslam et al. (2010), it can be expressed as the replacement cost of assets of the company. As another measure of value indicator, the cash flow (CF) shows the performance of the company on the basis of cash, not accrual basis of accounting.

The dependent and independent variables, which have been decided to be included in to the analysis, have been shown in the tables below.

Table 3.3: Dependent Variables of the Study

| Model 1 | Tobin's q (Q) | $Q = \frac{Total\ liabilities + MCAP}{Total\ assets}$ |
|---------|------------------------|---|
| Model 2 | Return on Equity (ROE) | $ROE = \frac{Net\ income}{Shareholders'equity}$ |
| Model 3 | Cash Flow (CF) | $CF = \frac{EBITDA}{Total \ assets}$ |

Table 3.4: Independent Variables of the Study

| Governance Score (GOV) | GOV = Having corporate governance score |
|-------------------------------|--|
| Leverage Ratio (LEV) | LEV = Long term debt/Total equity |
| Company Size (LNSIZ) | LNSIZ = Natural logarithm of total assets |
| EBITDA Capex Ratio (EBTCPX) | EBTCPX = EBITDA/Capex |
| Risk of Stock Movements (VAR) | VAR = Variance of third year share price |
| Change of Sales (GR) | $GR = rac{Sales*(current-prior\ period)}{Prior\ period\ sales}$ |

Governance score (GOV), one of the independent variables which have been considered to have impact on the company valuation has been included in three models as a dummy variable. It should be noted that the company valuation has not only been affected by governance score, it has been affected by other factors. Due to this reason, company size (LNSIZ), leverage of the company (LEV), ebitda capex ratio (EBTCPX), risk of share movements (VAR) and change of sales (GR) will be used as control variables in both three models.

The variables, which have been used in the analysis of this study, have been summarized as follows:

It has been computed the dependent variables of this study as tree versions of the company value indicators: Tobin's q ratio (Q), return on equity (ROE), and cash flow (CF).

It has been defined Tobin's q ratio (Q) in the below calculation:

$$Q = \frac{Total \; Liabilities + Market \, Value \; of \; Equity}{Total \; Assets}$$

It has been defined return on equity (ROE) in the below calculation:

$$ROE = \frac{Net\ income}{Shareholders'equity}$$

It has been defined cash flow (CF) in the below calculation:

$$CF = \frac{EBITDA}{Total\ Assets}$$

Based on the consideration that the independent variables of the study, it has been computed the variables as follows:

For the governance score;

$$GOV = Having\ corporate\ governance\ score$$

It has been defined the governance score as a dummy variable that equals one if the company has been in the Governance Index for the study period and zero otherwise. For the company size;

$$LNSIZ = Natural Logarithm of Total Assets$$

For the leverage of the company;

For the ebitda capex ratio;

$$EBTCPX = EBITDA / Capital Expenditures$$

For the risk of share movements;

$$VAR = Standard deviation of daily prices$$

For the change of sales;

$$GR = \frac{Sales*(current-prior\ period)}{Prior\ period\ sales}$$

It might be found the descriptive statistics of the companies used in the analysis in the table below.

Table 3.5: Descriptive Statistics of the Companies

The table present summary statistic for the variables, which have been used in the study. The sample has been covered the period starting from the year 2016 to the year 2018 and has 249 observations of the 83 companies.

| Variable | N | Mean | Median | Max. | Min. | Sd. Dev. |
|----------|-----|----------|--------|-----------|------------|----------|
| Q | 249 | 1.1825 | 1.1657 | 2.2568 | 0.5086 | 0.4134 |
| ROE | 249 | 0.0729 | 0.1277 | 28.5967 | -23.1709 | 2.5938 |
| CF | 249 | 0.1052 | 0.0945 | 0.5210 | -0.2553 | 0.0902 |
| GOV | 249 | 0.4940 | 0.0000 | 1.0000 | 0.0000 | 0.5010 |
| LNSIZ | 249 | 8.1355 | 8.1266 | 12.8258 | 3.5749 | 1.5803 |
| GR | 249 | 0.5574 | 0.1894 | 59.9373 | -0.9999 | 3.8405 |
| LEV | 249 | 0.6634 | 0.2860 | 13.6763 | 0.0000 | 1.2675 |
| VAR | 249 | 75.9877 | 1.4540 | 3280.7619 | 0.0052 | 378.0241 |
| EBTCPX | 249 | 275.0202 | 2.7003 | 264058.56 | -245026.58 | 23037.53 |

Source: Bloomberg financial database & author analysis

It can be found the table below displaying the means of the companies when associated governance index.

Table 3.6: Comparison of the Means of Companies

The table present the mean comparison between the companies, which have governance score, and the companies having no governance score. All variables of the study has been tested at a 5% significance level. Since the governance score (GOV) has been considered having an impact on the company valuation, it has been build two sample group in order to measure the governance impact on a company value with the dependent and independent variables.

| Variable | Mean (GOV=1) | Mean (GOV=0) | T – Test Stat. |
|----------|--------------|--------------|----------------|
| Q | 1.3143 | 1.3450 | -0.2636 |
| ROE | 0.0170 | 0.1274 | -0.3314 |
| CF | 0.1023 | 0.1081 | -0.5136 |
| LNSIZ | 8.1073 | 8.1631 | -0.2778 |
| GR | 0.8146 | 0.3064 | 1.0317 |
| LEV | 0.7714 | 0.5579 | 1.3259 |
| VAR | 34.4613 | 116.5254 | -0.9998 |
| EBTCPX | 296.5535 | 253.9996 | 0.0147 |

Source: Bloomberg financial database & author analysis

As it might be seen in the table above, it could not be found a significant difference between the companies having governance score and having not governance score at a 5% significance level.

3.2. METHODOLOGY

In this study, the relationship between the corporate governance and company valuation has been analysed. In this sense, the methodology of the analysis and hypotheses developed in line with this study have been explained below.

In accordance with this purpose, the following hypotheses have been developed for this study:

- (1) H1: Corporate governance positively affects Tobin's q ratio
- (2) H1: Corporate governance positively affects ROE

(3) H1: Corporate governance positively affects CF

Within the scope of the study, the data set of the companies to be used in this analysis have been tested with panel data analysis in both of three models.

3.3. PANEL DATA ANALYSIS

It has been used panel data analysis, which enable to include both cross-sectional and temporal effects in this study. Since the panel data analysis has both cross-sectional data and time dimension, there has been the opportunity to be able to use more data and this situation will make the econometric estimates more effective, as it increases the degree of freedom in the estimates. (Yıldız, Yalama, & Sevil, 2009)

In line with the purpose of this study, it has been established three models with three different dependent variables.

Model 1:

$$Q_{i,t} = \beta_0 + \beta_1 GOV_{i,t} + \beta_2 LNSIZ_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GR_{i,t} + \beta_5 VAR_{i,t} + \beta_6 EBTCPX_{i,t} + \varepsilon_{i,t}$$

Model 2:

$$ROE_{i,t} = \beta_0 + \beta_1 GOV_{i,t} + \beta_2 LNSIZ_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GR_{i,t} + \beta_5 VAR_{i,t} + \beta_6 EBTCPX_{i,t} + \varepsilon_{i,t}$$

Model 3:

$$CF_{i,t} = \beta_0 + \beta_1 GOV_{i,t} + \beta_2 LNSIZ_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GR_{i,t} + \beta_5 VAR_{i,t} + \beta_6 EBTCPX_{i,t} + \epsilon_{i,t}$$

As it might be seen in the models above, it has been build three different criteria as a value indicator. The structure of models have been comprised of six different independent variables out of which five variables have been control variables, whereas $GOV_{i,t}$ have been formed as a dummy variable.

3.4. EMPRICAL FINDINGS

In the estimation of the coefficient, which has been made in panel data analysis, there have been three main methods: pooled regression, fixed effects and random effects. In the meantime, the most commonly analysed models are fixed and random effects. (Bălă & Prada, 2014)

To be able to measure the impact of corporate governance on company value, the data set of each model have been analysed in the pooled regression.

The results of pooled regression analyses have been summarized in the below tables.

Table 3.7: The Results of Ordinary Least Squares Method

The table represent the results of the ordinary least squares regression of three versions of the company value indicators. The sample has been covered the period starting from the year 2016 to the year 2018. The dependent variables are company value measured as Tobin's q ratio, ROE, and CF. The symbols ***, **, and * denote significance at the 1%, 5%, and %10 levels, respectively.

| N= 249 | Model 1: Q | | Model 2: ROE | | | Model 3: CF | | | |
|---------------|------------|---------|---------------------|--------|---------|-------------|--------|----------|-------|
| | Coef. | t-Stat. | R-sq | Coef. | t-Stat. | R-sq | Coef. | t-Stat. | R-sq |
| С | 1.847 | 5.81*** | 0.040 | 0.202 | 0.224 | 0.004 | 0.089 | 3.11 | 0.181 |
| GOV | 8.12 | 0.000 | | -0.079 | -0.236 | | 0.000 | 0.028 | |
| LNSIZ | -0.066 | -1.747* | | -0.005 | -0.005 | | 0.002 | 0.485 | |
| LEV | -0.004 | -0.082 | | -0.090 | -0.672 | | -0.001 | -0.336 | |
| GR | -0.009 | -0.616 | | -0.000 | -0.003 | | -0.002 | -1.168 | |
| VAR | 0.000 | 2.263** | | 0.000 | 0.324 | | 6.05 | 4.275*** | |
| EBTCPX | 1.86 | 0.073 | | 2.72 | 0.377 | | 1.31 | 5.744*** | |

As it have been displayed the table above, it has been observed that the t-statistics value of Q, ROE and CF are 0.0001, -0.236 and 0.028 respectively.

After performing the pooled regression method, it has been tested which method (fixed effects or random effects) would be more suitable with the Hausman test.

It has been worthy noting that the fixed effect method mentions about the change in data over the time and also examines the relationship between the dependent and independent variables. In the random effects method, inter-unit changes are constant and unrelated to dependent and independent variables. (Bal & Özdemir, 2017) The important difference between fixed effect method and random effect method has been whether the unit effects have been correlated with the independent variables.

The results of Hausman test have been summarized in the below table.

Table 3.8: The Result of Hausman Test

The table represent the results of the Hausman test of three versions of company value indicators. The sample period is from 2016 to 2018. Dependent variables The dependent variables are company value measured as Tobin's q ratio, ROE, and CF.

| Dependent Variable | Chi-sq. Statistic | Chi-Sq. d.f. | Prob. |
|--------------------|-------------------|--------------|--------|
| Q | 6.031613 | 4 | 0.1968 |
| ROE | 0.288125 | 4 | 0.9906 |
| CF | 2.089676 | 4 | 0.7193 |

Hausman (1978) specification test has been developed in order to make a choice, which has been suitable among the methods in panel data analysis. It should not be forgotten that, it has been investigated whether Chi-Square value has been less than 5%. As it might be seen in the table above, the probability of Chi-Square values for each dependent variable has been more than 5%, which means it has been needed to perform random effects method.

The results of random effects have been summarized for each dependent variables in the below table.

Table 3.9: The Results of Random Effects Method

The table represent the results of the random effect method of three versions of the company value indicators. The sample has been covered the period starting from the year 2016 to the year 2018. All variables have been defined in the previous section of the study. The impact of governance score has been tested with random effects method both of three models. The symbols ***, **, and * denote significance at the 1%, 5%, and %10 levels, respectively.

| N=249 | Model 1: Q | | Model 2: ROE | | | Model 3: CF | | | |
|--------|------------|---------|---------------------|--------|---------|-------------|--------|---------|-------|
| | Coef. | t-Stat. | R-sq | Coef. | t-Stat. | R-sq | Coef. | t-Stat. | R-sq |
| | | | | | | | | | |
| C | 2.543 | 5.983 | 0.285 | 0.203 | 0.186 | 0.004 | 0.094 | 2.451 | 0.047 |
| GOV | 0.002 | 0.011 | | -0.079 | -0.196 | | 0.000 | -0.022 | |
| LNSIZ | -0.153 | -3.103 | | -0.005 | -0.040 | | 0.001 | 0.215 | |
| LEV | 0.013 | 0.347 | | -0.091 | -0.559 | | -0.001 | -0.275 | |
| GR | 0.000 | 0.021 | | 0.000 | -0.002 | | 0.000 | -0.475 | |
| VAR | 0.000 | 1.239 | | 0.000 | 0.269 | | 0.000 | 2.853 | |
| EBTCPX | 0.000 | 0.111 | | 0.000 | 0.313 | | 0.000 | 9.470 | |

As it might be seen the table above, it has been observed that the t-statistics value of the independent variable, which has been GOV in this study, for each of model Q, ROE and CF are 0.011330, -0.195908 and -0.022114 respectively. Due to the fact that, it has been observed that there has been no significance impact of corporate governance on company value.

The results of random effect method demonstrate that there has been no significant impact of corporate governance on company value when considered the value from the point of market-based, accounting-based, and cash-based indicator. Therefore, it has been determined that there have been no significant governance impact on company value.

3.5. CONCLUSION

The aim of this study is to examine the relationship between corporate governance and company value. Within the scope of this study, it has been examined the company value by considering that being subject to Governance Index contributes positively to the company value.

Corporate governance has been a major step forward by Turkish law with the new Turkish Commercial Code, which has entered into force in 2012. In this regard, it has been a motivating factor in order to exercise this study.

In the first part of this study, corporate governance tried to explain conceptually, in the meantime the impact of corporate governance practices on companies have been mentioned. In this respect, the theoretical and historical development of corporate governance and the corporate governance principles have been explained. In the second part of the study, the studies which take part in literature have been mentioned at national and international area. In the last part of this study, the impact of corporate governance rating of the companies which has been publicly traded in Borsa İstanbul and subject to BIST Corporate Governance Index within Borsa İstanbul on company value have been examined by using panel data analysis. With using panel data analysis, the companies have been compared between having rating score and not having the score.

The sample of the study has been comprised of 83 companies which have been publicly traded in Borsa İstanbul. In this study, the impact of corporate governance practices of the companies in the sample have been investigated empirically. Within the scope in this study, the impact of governance applications on company value has been examined from the point of market-based, accounting-based and cash-based indicators, which have been used as valuation factors.

As a result of the study, it has been observed that there has been no significant impact of having governance score on company valuation from the point of market-based, accounting-based, and cash-based value criterions.

From this point of view, it has been arrived at a conclusion that there has been no significant governance impact on the company value.

Corporate investors generally give importance whether the company has been well-managed in terms of governance practices when they have do long-term investment and investment preferences. Therefore, corporate investors prefer the companies with a high governance score in their portfolio selection.

On the other hand, it is worthy noting that individual investors have been the big majority of the total investors in Borsa İstanbul in comparison with the developed markets. Individual investors, who tend to short-term investment, have not decide to investment preferences in reference to governance score of the companies. In spite of the fact that there have been limited domestic / foreign corporate investors in Turkish stock market, recognizing the well-governed companies by both individual and corporate investors in Turkish stock market it will be reflected to the investment preferences of investors. In this regard, promoting the corporate governance practices will enable to preferred the companies by the investors and so the value of the companies will be increased.

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APPENDIX

Table A.1: Expectations of Stakeholders

| Partners | Expectations of | Information Supplied by |
|--------------|---------------------------------|---------------------------------|
| | Stakeholders | Organisations |
| Employees | Remuneration, job security, | Company reports, |
| | training | employment news, |
| | | negotiations |
| Shareholders | Dividends and increased share | Annual reports and accounts, |
| | price | information on mergers and |
| | | takeovers |
| Customers | Quality, service, security, | Advertising, documentation, |
| | value for money | surveys |
| Banks | Company liquidity and | Coverage ratios, security, cash |
| | solvency, value of guarantees, | flow forecast |
| | cash flow generation | |
| Suppliers | Stable and lasting relationship | Prompt payment |
| State | Respect for laws, | Reports to official bodies, |
| | employment, competitiveness, | press releases |
| | and reliable data | |
| Public | Operational security, | Security reports, bulletins |
| | contribution to the community | |
| Environment | Substitution of unsustainable | Environmental reports, |
| | resources and non-polluting | conformance reports |
| | activities | |

Source: (Blondel, Joffre, Planchais, & Simon, 2012)

Table A.2: Institutions with corporate governance awards (2018)

| Highest Corporate Governance Rating (publicly traded in Borsa İstanbul) |
|---|
| 4- Aksa Akrilik |
| 5- Doğuş Otomotiv |
| 6- TAV Havalimanları |
| Highest Corporate Governance Rating (private companies) |
| 2- Sütaş |
| Highest Corporate Governance Rating (NGO) |
| 4- Darüşşafaka Cemiyeti |
| 5- Türkiye Eğitim Gönüllüleri Vakfı |
| 6- Türkiye İç Denetim Enstitüsü |
| Company which most increased the score |
| 2- AG Anadolu Holding |

Source: TKYD

Table A.3: Corporate Governance Rating Agencies

| 1 | Saha Kurumsal Yönetim ve Derecelendirme Hizmeti A.Ş. | | | | | | | |
|---|--|--|--|--|--|--|--|--|
| 2 | Kobirate Uluslararası Kredi Derecelendirme ve Kurumsal Yönetim | | | | | | | |
| | Hizmetleri A.Ş. | | | | | | | |
| 3 | JCR Avrasya Derecelendirme A.Ş. | | | | | | | |
| 4 | DRC Derecelendirme Hizmetleri A.Ş. | | | | | | | |

Source: CMB

Table A.4: Sections of corporate governance rating

| Shareholders | Public disclosure | Stakeholders | Board of directors |
|--------------|-------------------|--------------|--------------------|
| 25% | 25% | 15% | 35% |

Source: (Saha Rating, 2019)

Table A.5: Corporate Governance Index (XKURY)

| 1 | AGHOL | AG Anadolu Grubu Holding A.Ş. |
|----|-------|---|
| 2 | AKSGY | Akiş Gayrimenkul Yatırım Ortaklığı A.Ş. |
| 3 | AKMGY | Akmerkez Gayrimenkul Yatırım Ortaklığı A.Ş. |
| 4 | AKSA | Aksa Akrilik Kimya Sanayii A.Ş. |
| 5 | ALBRK | Albaraka Türk Katılım Bankası A.Ş. |
| 6 | ANSGR | Anadolu Anonim Türk Sigorta Şirketi |
| 7 | AEFES | Anadolu Efes Biracılık ve Malt Sanayii A.Ş. |
| 8 | ARCLK | Arçelik A.Ş. |
| 9 | ASELS | Aselsan Elektronik Sanayi ve Ticaret A.Ş. |
| 10 | AYGAZ | Aygaz A.Ş. |
| 11 | CCOLA | Coca-Cola İçecek A.Ş. |
| 12 | CRDFA | Creditwest Faktoring A.Ş. |
| 13 | DOHOL | Doğan Şirketler Grubu Holding A.Ş. |
| 14 | DGGYO | Doğuş Gayrimenkul Yatırım Ortaklığı A.Ş. |
| 15 | DOAS | Doğuş Otomotiv Servis ve Ticaret A.Ş. |
| 16 | ENKAI | Enka İnşaat ve Sanayi A.Ş. |
| 17 | EREGL | Ereğli Demir ve Çelik Fabrikaları T.A.Ş. |
| 18 | GARFA | Garanti Faktoring A.Ş. |
| 19 | GRNYO | Garanti Yatırım Ortaklığı A.Ş. |
| 20 | GLYHO | Global Yatırım Holding A.Ş. |
| 21 | HLGYO | Halk Gayrimenkul Yatırım Ortaklığı A.Ş. |
| 22 | HURGZ | Hürriyet Gazetecilik ve Matbaacılık A.Ş. |
| 23 | IHEVA | İhlas Ev Aletleri İmalat Sanayi ve Ticaret A.Ş. |
| 24 | IHLAS | İhlas Holding A.Ş. |
| 25 | LOGO | Logo Yazılım Sanayi ve Ticaret A.Ş. |
| 26 | MGROS | Migros Ticaret A.Ş. |
| 27 | OTKAR | Otokar Otomotiv ve Savunma Sanayi A.Ş. |

| 28 | PRKME | Park Elektrik Üretim ve Madencilik Sanayi ve Ticaret A.Ş. |
|----|-------|---|
| 29 | PGSUS | Pegasus Hava Taşımacılığı A.Ş. |
| 30 | PETUN | Pınar Entegre Et ve Un Sanayii A.Ş. |
| 31 | PINSU | Pınar Su ve İçecek Sanayi ve Ticaret A.Ş. |
| 32 | PNSUT | Pınar Süt Mamülleri Sanayii A.Ş. |
| 33 | SKBNK | Şekerbank T.A.Ş. |
| 34 | TATGD | Tat Gıda Sanayi A.Ş. |
| 35 | TAVHL | Tav Havalimanları Holding A.Ş. |
| 36 | TOASO | Tofaş Türk Otomobil Fabrikası A.Ş. |
| 37 | TRCAS | Turcas Petrol A.Ş. |
| 38 | TUPRS | Tüpraş – Türkiye Petrol Rafineleri A.Ş. |
| 39 | PRKAB | Türk Prysmian Kablo ve Sistemleri A.Ş. |
| 40 | TTKOM | Türk Telekominikasyon A.Ş. |
| 41 | TTRAK | Türk Traktör ve Ziraat Makineleri A.Ş. |
| 42 | GARAN | Türkiye Garanti Bankası A.Ş. |
| 43 | HALKB | Türkiye Halk Bankası A.Ş. |
| 44 | TSKB | Türkiye Sınai Kalkınma Bankası A.Ş. |
| 45 | SISE | Türkiye Şişe ve Cam Fabrikaları A.Ş. |
| 46 | VESTL | Vestel Elektronik Sanayi ve Ticaret A.Ş. |
| 47 | YKBNK | Yapı ve Kredi Bankası A.Ş. |

Source: www.kap.org.tr

Table C.1: BIST100 Companies Subject to BIST Governance Index

| | BIST Governance Index | 2016 | 2017 | 2018 |
|----|--|-------|-------|-------|
| 1 | Aksa Akrilik Kimya Sanayi A.Ş. | 95.98 | 96.32 | 97.02 |
| 2 | Anadolu Efes Biracılık ve Malt Sanayii A.Ş. | 95.77 | 95.77 | 95.83 |
| 3 | Arçelik A.Ş. | 95.23 | 95.23 | 95.35 |
| 4 | Aselsan Elektronik Sanayi ve Ticaret A.Ş. | 91.51 | 92.04 | 92.04 |
| 5 | Coca Cola İçecek Sanayi A.Ş. | 94.48 | 94.52 | 94.52 |
| 6 | Doğan Şirketler Grubu Holding A.Ş. | 93.98 | 94.06 | 94.18 |
| 7 | Doğuş Otomotive Servis ve Ticaret A.Ş. | 94.20 | 96.30 | 96.41 |
| 8 | Enka İnşaat ve Sanayi A:Ş. | 91.75 | 91.79 | 91.80 |
| 9 | Ereğli Demir ve Çelik Fabrikaları T.A.Ş. | 90.20 | 92.20 | 92.70 |
| 10 | Migros Ticaret A.Ş. | 95.01 | 95.77 | 95.81 |
| 11 | Otokar Otomotiv ve Savunma San ve Tic. A.Ş. | 93.19 | 93.32 | 91.03 |
| 12 | Park Elektrik Üretim Madencilik Sanayi ve Ticaret A.Ş. | 90.79 | 90.79 | 90.01 |
| 13 | Pegasus Hava Taşımacılığı A.Ş. | 91.70 | 92.50 | 94.00 |
| 14 | TAV Havalimanları Holding A.Ş. | 95.38 | 96.17 | 96.25 |
| 15 | TOFAŞ Türk Otomobil Fabrikası A.Ş. | 91.38 | 91.48 | 92.04 |
| 16 | Tüpraş - Türkiye Petrol Rafinerileri A.Ş. | 94.15 | 94.67 | 94.81 |
| 17 | Türk Telekominikasyon A.Ş. | 90.24 | 91.75 | 92.87 |
| 18 | Türk Traktör ve Ziraat Makineleri A.Ş. | 91.49 | 92.13 | 92.16 |
| 19 | Türkiye Şişe ve Cam Fabrikaları A.Ş. | 94.41 | 94.83 | 95.28 |
| 20 | Vestel Elektronik Sanayi ve Ticaret A.Ş. | 93.60 | 94.86 | 95.50 |
| 21 | AG Anadolu Grubu Holding A.Ş. | 91.88 | 92.01 | 95.28 |
| 22 | Akiş Gayrimenkul Yatırım Ortaklığı A.Ş. | 94.39 | 94.90 | 95.36 |
| 23 | Akmerkez Gayrimenkul Yatırım Ortaklığı A.Ş. | 92.24 | 93.74 | 93.74 |
| 24 | Anadolu Anonim Türk Sigorta Şirketi | 93.00 | 93.00 | 95.11 |
| 25 | Aygaz A.Ş. | 93.61 | 93.64 | 93.99 |
| 26 | Creditwest Faktoring A.Ş. | 84.46 | 85.26 | 86.04 |
| 27 | Doğuş Gayrimenkul Yatırım Ortaklığı A.Ş. | 89.25 | 91.70 | 92.80 |
| 28 | Garanti Faktoring A.Ş. | 92.60 | 93.21 | 93.90 |

| | BIST Governance Index | 2016 | 2017 | 2018 |
|----|---|-------|-------|-------|
| 29 | Garanti Yatırım Ortaklığı A.Ş. | 94.00 | 94.30 | 94.50 |
| 30 | Global Yatırım Holding A.Ş. | 89.90 | 90.52 | 90.60 |
| 31 | Halk gayrimenkul Yatırım Ortaklığı A.Ş. | | 92.35 | 92.74 |
| 32 | Hürriyet Gazetecilik ve Matbaacılık A.Ş. | 92.79 | 91.27 | 92.67 |
| 33 | İhlas Ev Aletleri İmalat Sanayi ve ticaret A.Ş. | 80.82 | 81.99 | 83.75 |
| 34 | İhlas Holding A.Ş. | 80.46 | 81.45 | 83.32 |
| 35 | Logo Yazılım Sanayi ve Ticaret A.Ş. | 91.24 | 90.83 | 91.14 |
| 36 | Pınar Entegre Et ve Un Sanayii A.Ş. | 92.64 | 92.88 | 93.09 |
| 37 | Pınar Su Sanayi ve Ticaret A.Ş. | 93.80 | 94.60 | 95.00 |
| 38 | Pınar Süt Mamülleri Sanayii A.Ş. | 92.37 | 92.62 | 92.71 |
| 39 | TAT Gıda Sanayi A.Ş. | | 90.78 | 93.08 |
| 40 | Turcas Petrol A.Ş. | 93.50 | 94.86 | 95.70 |
| 41 | Türk Prysmian Kablo ve Sistemleri A.Ş. | 90.92 | 91.13 | 91.76 |
| | 1 , /, / 111 | | | |

Source: www.kap.org.tr/tr/endeksler

Table C.2: BIST100 Companies Having No Governance Score

| | BIST100 |
|----|--|
| 1 | Afyon Çimento Sanayi T.A.Ş. |
| 2 | Aksa Enerji Üretim A.Ş. |
| 3 | Alarko Gayrimenkul Yatırım Ortaklığı A.Ş. |
| 4 | Alarko Holding A.Ş. |
| 5 | Anadolu Cam Sanayii A.Ş. |
| 6 | Beşiktaş Futbol Yatırımları Sanayi ve Ticaret A.Ş. |
| 7 | Bim Birleşik Mağazalar A.Ş. |
| 8 | Deva Holding A.Ş. |
| 9 | Ege Endüstri ve Ticaret A.Ş. |
| 10 | EİS Eczacıbaşı İlaç, Sınai ve Finansal Yatırımlar Sanayi ve Ticaret A.Ş. |
| 11 | Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş. |

| | BIST100 |
|----|---|
| 12 | Fenerbahçe Futbol A.Ş. |
| 13 | Ford Otomotiv A.Ş. |
| 14 | Galatasaray Sportif Sınai ve Ticari Yatırımlar A.Ş. |
| 15 | Goodyear Lastikleri T.A.Ş. |
| 16 | Göltaş Göller Bölgesi Çimento Sanayi ve Ticaret A.Ş. |
| 17 | Gözde Girişim Sermayesi Yatırım Ortaklığı A.Ş. |
| 18 | GSD Holding A.Ş. |
| 19 | Gübre Fabrikaları A.Ş. |
| 20 | Hacı Ömer Sabancı Holding A.Ş. |
| 21 | İpek Doğal Enerji Kaynakları Araştırma ve Üretim A.Ş. |
| 22 | İş Gayrimenkul Yatırım Ortaklığı A.Ş. |
| 23 | İttifak Holding A.Ş. |
| 24 | Kardemir Karabük Demir Çelik Sanayi ve Ticaret A.Ş. |
| 25 | Karsan Otomotiv Sanayi ve Ticaret A.Ş. |
| 26 | Kartonsan Karton Sanayi ve Ticaret A.Ş. |
| 27 | Koç Holding A.Ş. |
| 28 | Kordsa Teknik Tekstil A.Ş. |
| 29 | Koza Altın İşletmeleri A.Ş. |
| 30 | Koza Anadolu Metal Madencilik İşletmeleri A.Ş. |
| 31 | Metro Ticari ve Mali Yatırımlar Holding A.Ş. |
| 32 | Netaş Telekominikasyon A.Ş. |
| 33 | ODAŞ Elektrik Üretim Sanayi Ticaret A.Ş. |
| 34 | Petkim Petrokimya Holding A.Ş. |
| 35 | Soda Sanayii A.Ş. |
| 36 | Tekfen Holding A.Ş. |
| 37 | Trakya Cam Sanayi A.Ş. |
| 38 | TURKCELL İletişim Hizmetleri A.Ş. |
| 39 | Tümosan Motor ve Traktör Sanayi A.Ş. |
| 40 | Türk Hava Yolları A.O. |

| | BIST100 |
|----|-----------------------------------|
| 41 | Ülker Bisküvi Sanayi A.Ş. |
| 42 | Zorlu Enerji Elektrik Üretim A.Ş. |

Source: www.kap.org.tr/tr/endeksler

Table C.3: Dependent variables of the study

| Model 1 | Tobin's q (Q) | $O = \frac{Total\ liabilities + MCAP}{1}$ |
|---------|------------------------|---|
| | | Total assets |
| Model 2 | Return on Equity (ROE) | $ROE = \frac{Net income}{}$ |
| | | $\frac{ROE = \frac{1}{Shareholders'equity}}{Shareholders'equity}$ |
| Model 3 | Cash Flow (CF) | $CE = \frac{EBITDA}{C}$ |
| | | $\frac{CF - \overline{Total \ assets}}{Total \ assets}$ |

Table C.4: Independent variables of the study

| GOV = Having corporate governance score |
|--|
| LEV = Long term debt/Total equity |
| LNSIZ = Natural logarithm of total assets |
| EBTCPX = EBITDA/Capex |
| VAR = Variance of third year share price |
| $GR = \frac{Sales * (current - prior period)}{Prior period sales}$ |
| |

Table C.5: Descriptive Statistics of the Companies

The table present summary statistic for the variables, which have been used in the study. The sample has been covered the period starting from the year 2016 to the year 2018 and has 249 observations of the 83 companies.

| Variable | N | Mean | Median | Max. | Min. | Sd. Dev. |
|----------|-----|----------|--------|-----------|------------|----------|
| Q | 249 | 1.1825 | 1.1657 | 2.2568 | 0.5086 | 0.4134 |
| ROE | 249 | 0.0729 | 0.1277 | 28.5967 | -23.1709 | 2.5938 |
| CF | 249 | 0.1052 | 0.0945 | 0.5210 | -0.2553 | 0.0902 |
| GOV | 249 | 0.4940 | 0.0000 | 1.0000 | 0.0000 | 0.5010 |
| LNSIZ | 249 | 8.1355 | 8.1266 | 12.8258 | 3.5749 | 1.5803 |
| GR | 249 | 0.5574 | 0.1894 | 59.9373 | -0.9999 | 3.8405 |
| LEV | 249 | 0.6634 | 0.2860 | 13.6763 | 0.0000 | 1.2675 |
| VAR | 249 | 75.9877 | 1.4540 | 3280.7619 | 0.0052 | 378.0241 |
| EBTCPX | 249 | 275.0202 | 2.7003 | 264058.56 | -245026.58 | 23037.53 |

Source: Bloomberg financial database & author analysis

Table C.6: Comparison of the Means of the Companies

The table present the mean comparison between the companies, which have governance score, and the companies having no governance score. All variables of the study has been tested at a 5% significance level. Since the governance score (GOV) has been considered having an impact on the company valuation, it has been build two sample group in order to measure the governance impact on a company value with the dependent and independent variables.

| Variable | Mean (GOV=1) | Mean (GOV=0) | T – Test Stat. |
|----------|--------------|--------------|----------------|
| Q | 1.3143 | 1.3450 | -0.2636 |
| ROE | 0.0170 | 0.1274 | -0.3314 |
| CF | 0.1023 | 0.1081 | -0.5136 |
| LNSIZ | 8.1073 | 8.1631 | -0.2778 |
| GR | 0.8146 | 0.3064 | 1.0317 |
| LEV | 0.7714 | 0.5579 | 1.3259 |
| VAR | 34.4613 | 116.5254 | -0.9998 |
| EBTCPX | 296.5535 | 253.9996 | 0.0147 |

Source: Bloomberg financial database & author analysis

Table C.7: The Results of the Ordinary Least Squares Method

The table represent the results of the ordinary least squares regression of three versions of the company value indicators. The sample has been covered the period starting from the year 2016 to the year 2018. The dependent variables are company value measured as Tobin's q ratio, ROE, and CF. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

| N= 249 | Model 1: Q | | Model 2: ROE | | | Model 3: CF | | | |
|---------|------------|---------|--------------|--------|---------|-------------|--------|----------|-------|
| 11= 249 | Coef. | t-Stat. | R-sq | Coef. | t-Stat. | R-sq | Coef. | t-Stat. | R-sq |
| С | 1.847 | 5.81*** | 0.040 | 0.202 | 0.224 | 0.004 | 0.089 | 3.11 | 0.181 |
| GOV | 8.12 | 0.000 | | -0.079 | -0.236 | | 0.000 | 0.028 | |
| LNSIZ | -0.066 | -1.747* | | -0.005 | -0.005 | | 0.002 | 0.485 | |
| LEV | -0.004 | -0.082 | | -0.090 | -0.672 | | -0.001 | -0.336 | |
| GR | -0.009 | -0.616 | | -0.000 | -0.003 | | -0.002 | -1.168 | |
| VAR | 0.000 | 2.263** | | 0.000 | 0.324 | | 6.05 | 4.275*** | |
| EBTCPX | 1.86 | 0.073 | | 2.72 | 0.377 | | 1.31 | 5.744*** | |

Table C.8: The Results of Hausman Test

The table represent the results of the Hausman test of three versions of company value indicators. The sample period is from 2016 to 2018. Dependent variables have been defined in the previous sections.

| Dependent Variable | Chi-sq. Statistic | Chi-Sq. d.f. | Prob. |
|--------------------|-------------------|--------------|--------|
| Q | 6.031613 | 4 | 0.1968 |
| ROE | 0.288125 | 4 | 0.9906 |
| CF | 2.089676 | 4 | 0.7193 |

Table C.9: The Results of Random Effects Method

The table represent the results of the random effect method of three versions of the company value indicators. The sample has been covered the period starting from the year 2016 to the year 2018. All variables have been defined in the previous section of the study. The impact of governance score has been tested with random effects method both of three models. The symbols ***, **, and * denote significance at the 1%, 5%, and %10 levels, respectively.

| N=249 | Model 1: Q | | | Model 2: ROE | | | Model 3: CF | | |
|--------|------------|-----------|-----------|--------------|---------|-------|-------------|----------|-------|
| 11-249 | Coef. | t-Stat. | R-sq | Coef. | t-Stat. | R-sq | Coef. | t-Stat. | R-sq |
| | | | | | | | | | _ |
| C | 2.543 | 5.983*** | 0.28 5 | 0.203 | 0.186 | 0.004 | 0.094 | 2.451** | 0.047 |
| GOV | 0.002 | 0.011 | | -0.079 | -0.196 | | 0.000 | -0.022 | |
| LNSIZ | -0.153 | -3.103*** | | -0.005 | -0.040 | | 0.001 | 0.215 | |
| LEV | 0.013 | 0.347 | | -0.091 | -0.559 | | -0.001 | -0.275 | |
| GR | 0.000 | 0.021 | | 0.000 | -0.002 | | 0.000 | -0.475 | |
| VAR | 0.000 | 1.239 | | 0.000 | 0.269 | | 0.000 | 2.853*** | |
| EBTCPX | 0.000 | 0.111 | | 0.000 | 0.313 | | 0.000 | 9.470*** | |