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FIRM LEVEL DETERMINANTS OF
CORPORATE WEB TRANSPARENCY AND ITS RELATION TO
COMPANY PERFORMANCE

Gölsüm DİKMEN

Supervisor
Assoc. Prof. Dr. Çağnur BALSARI

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University : Dokuz Eylül University
Graduate School : Graduate School of Social Sciences
Name and Surname : GÜLSÜM DİKMEN
Title of Thesis : Firm Level Determinants of Corporate Web Transparency and Its Relation to Company Performance

Defence Date : 23.12.2013
Supervisor : Assoc Prof.Dr.Çağnur BALSARI

EXAMINING COMMITTEE MEMBERS

<u>Title, Name and Surname</u>	<u>University</u>	<u>Signature</u>
Assoc Prof.Dr.Çağnur BALSARI	DOKUZ EYLUL UNIVERSITY	
Prof.Dr.Mübeccel Banu DURUKAN SALI	DOKUZ EYLUL UNIVERSITY	
Assoc Prof.Dr.Ebru GÜNLÜ	DOKUZ EYLUL UNIVERSITY	

Unanimity (✓)
Majority of votes ()

The thesis titled as "**Firm Level Determinants of Corporate Web Transparency and Its Relation to Company Performance**" prepared and presented by GÜLSÜM DİKMEN is accepted and approved.

Prof.Dr. Utku UTKULU
Director

DECLARATION

I hereby declare that this master's thesis **“Firm Level Determinants of Corporate Web Transparency and Its Relation to Company Performance”** has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honour.

Date

.../.../.....

Gülsüm DİKMEN

Signature

ABSTRACT
Master's Thesis
Firm Level Determinants of Corporate Web Transparency and Its
Relation to Company Performance
Glsm DKMEN

Dokuz Eyll University
Graduate School of Social Sciences
Department of Business Administration
Business Administration Program

The importance of the corporate governance is increased after the big corporate scandals like Enron, WorldCom and Parmalat. Sarbanes Oxley Act increased regulation in the U.S. and rest of the world followed. Although in Turkey New Turkish Commercial Code made the necessary changes to improve corporate governance practices and also corporate transparency which is a part of good corporate governance practices.

There are two main purposes of this study, first one is to identify the firm level determinants of corporate web transparency and the second purpose is to find the effect of corporate web transparency on the relationship of financial information and firm value of firms quoted at Istanbul Stock Exchange (ISE)¹.

The first chapter defines corporate governance and discussed corporate governance in Turkey. In the second chapter, corporate transparency and corporate transparency and disclosure studies in Turkey, and the literature on the effects of corporate governance on firm performance is discussed. In the third chapter, an empirical analysis is made for firm level determinants of corporate web transparency and the effect of corporate web transparency and the relationship of financial information and firm value of firms.

¹ ISE has reorganized as Borsa Istanbul at 2013.

The data is obtained from the web sites of the sample firms and database web sites for the year of 2011 and the analysis is applied to 209 non-financial firms quoted at ISE.

The results show that Market to Book Value, Free Float Ratio and Audit Firms are the important determinants of firm level corporate web transparency, however, we did not find significant support for the effect of web transparency on the relationship of financial information and firm value.

Keywords: Corporate Web Transparency, Firm Performance, Corporate Web Transparency Score, ISE, Corporate Governance

ÖZET

Yüksek Lisans Tezi

Kurumsal Web Sitesi Şeffaflığının Firma Bazında Belirleyicileri ve

Firma Performansı ile İlişkisi

Gülsüm DİKMEN

Dokuz Eylül Üniversitesi

Sosyal Bilimler Enstitüsü

İngilizce İşletme Anabilim Dalı

İngilizce İşletme Yönetimi Programı

Enron, WorldCom ve Parmalat gibi büyük şirket skandalları sonrasında kurumsal yönetimin önemi artmıştır. Sarbanes Oxley Yasası ile birlikte ABD’de başlayan düzenlemeleri, diğer ülkelerde takip etmiştir. Türkiye’de de Yeni Türk Ticaret Kanunu iyi kurumsal yönetim uygulamaları ve iyi kurumsal yönetim uygulamalarının bir parçası olan kurumsal şeffaflığı arttırmak için gerekli değişiklikleri yapmıştır.

Bu çalışmanın iki temel amacı vardır, birincisi firma bazında kurumsal web sitesi şeffaflığının belirleyicilerini tespit etmek, ikincisi İstanbul Menkul Kıymetler Borsası’nda (İMKB)² kote olan firmalar için, kurumsal web sitesi şeffaflığının, firmaların finansal sonuçlarıyla, firma değeri arasındaki ilişkisi üzerindeki etkisini bulmaktır.

Çalışmanın birinci bölümünde kurumsal yönetim tanımlanmıştır ve Türkiye’de kurumsal yönetim uygulamaları ele alınmıştır. İkinci bölümde, kurumsal şeffaflık ve Türkiye’deki kurumsal şeffaflık ve bilgilendirme çalışmaları ve kurumsal yönetimin firma performansı etkileri ile ilgili literatür tartışılmıştır. Üçüncü bölümde ise, kurumsal web sitesi şeffaflığının firma bazında belirleyicileri ve kurumsal web sitesi şeffaflığının firmaların finansal sonuçlarıyla, firma değeri arasındaki ilişkiye etkisi hakkında ampirik bir analiz yapılmaktadır.

² İMKB, Borsa İstanbul olarak 2013 yılında yeniden yapılandırılmıştır.

Veriler 2011 yılı için İMKB’de kote olan 209 finansal olmayan firmaların web sitelerinden ve veritabanı sitelerinden elde edilmiştir ve analiz edilmiştir.

Sonuçlar İMKB'de işlem gören şirketlerin firma bazında kurumsal web sitesi şeffaflığının önemli belirleyicilerinin, Piyasa Defter Değeri, Halka Açıklık Oranı ve Denetim Firması olduğunu gösterir, ancak kurumsal web sitesi şeffaflığının firmaların finansal sonuçlarıyla, firma değeri arasındaki ilişkiye etkisi için önemli bir destek bulunamamıştır.

Anahtar Kelimeler: Kurumsal Web Sitesi Şeffaflığı, Firma Performansı, Kurumsal Web Sitesi Şeffaflık Skoru, İMKB, Kurumsal Yönetim

**FIRM LEVEL DETERMINANTS OF CORPORATE WEB
TRANSPARENCY AND ITS RELATION TO COMPANY PERFORMANCE**

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LIST OF ABBREVIATIONS

CG	Corporate Governance
CMB	Capital Market Board of Turkey
CSD	Central Securities Depository Institution
CWT	Corporate Web Transparency
DR	Debt Ratio
EPS	Earnings per Share
FFR	Free Float Ratio
GA	General Assembly
ISE	Istanbul Stock Exchange
MTBV	Market to Book Value
New TCC	New Turkish Commercial Code
OCR	Ownership Concentration Ratio
OECD	The Organization of Economic Cooperation and Development
ROA	Return on Assets
ROE	Return on Equity
S&P	Standard & Poor's
SMEs	Small and Medium-Sized Enterprises
SOX	Sarbanes-Oxley Act
SPSS	Statistical Package for Social Sciences
T&D	Transparency and Disclosure
TUSIAD	Turkish Industrialists' and Businessmen's Association

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INTRODUCTION

Corporate governance has become an important topic by the influence of the collapse of huge companies in the last decade. While the importance of corporate governance increased, firms have been forced to be more transparent which is one of the four pillars for corporate governance framework; others are responsibility, accountability and fairness in World Bank definition.

The concept of corporate governance was discussed firstly in UK, a committee chaired by Sir Adrian Cadbury, “The Cadbury Committee Report: Financial Aspects of Corporate Governance” was published in 1992. The reason for the establishment of this committee is sudden collapsed firms on the London Stock Exchange which has not been reflected in their financial statements. Greenbury Report in 1995 and consolidated of Cadbury and Greenbury Report is Hampell Report which was published in 1998, aimed to improve corporate governance in the UK. (Short et al, 1999: 337)

After the Enron and WorldCom scandal in the U.S., Sarbanes–Oxley Act (SOX) also known as the Public Company Accounting Reform and Investor Protection Act, was published in 2002. The act is administered by the Securities and Exchange Commission (SEC), which sets deadlines for compliance and publishes rules on requirements. Sarbanes-Oxley is not a set of business practices and does not specify how a business should store records; rather, it defines which records are to be stored and for how long.

Furthermore, the Organization for Economic Co-operation and Development (OECD) Countries published a set of core principles of good corporate governance in 1999 which is the first set of international corporate governance standards.

In Turkey, Capital Market Board of Turkey, (CMB) defined and issued Corporate Governance Principles in 2003 and revised them in 2005. Firms listed in Turkey, are required to provide certain information in their web sites for public disclosure. According to CMB Corporate Governance Principles (2003), investor relation section accessible via a link on the main page and a section recommended consist on minimum, trade register details, last version of articles of association,

partnership structure of firms, information about preferred shares and board members, annual reports for last two years, corporate governance compliance report, participants lists of last two general meetings, meeting records and proxy voting form in general meeting, and also, periodic financial statements and independent audit reports, board meetings report that may affect the value of capital market instruments, information of the transaction of capital market instruments of the board members, managers, and as a direct or indirect shareholders holding 5% of corporate capital, and frequently asked questions section.

Additionally, New Turkish Commercial Code (the “New TCC”), requires Small and Medium-Sized Enterprises (SMEs) to have websites and disclose certain information on it. Financial statements, annual reports, auditor reports, valuation reports, statement of the founders, general meeting reports and important board of director’s decisions are the examples of the information that must be on the web site of the capital firms. The information required from SMEs started a big discussion in the country like trade secret. But McKinsey survey (2002), suggests, investors from all over the world indicate that they are willing to pay more premiums for companies with effective governance. Thus, good corporate governance is believed to affect firms’ performance positively. When good firms are more transparent, their cost of capital reduces. So it expected that high-performing firms to disclose more information.

In the light of this research there are two main purposes of this study. First purpose is to identify the firm level determinants of corporate web transparency and the second purpose is to find the effect of corporate web transparency on the relationship of financial information and firm value. The empirical research is based on the sample of 209 non-financial companies selected from the listed firms at ISE.

Corporate web transparency attributes are obtained from CMB Corporate Governance Principles (2003), which the firm listed in Turkey, are required to provide certain information in their web sites. There are 30 attributes in total for each company, are extracted from web sites of the publicly held firms, and they are converted into four different subcategories, which are investor relations, current information, corporate governance policies and communication channel. The

database for company performance measures and determinants of the sample firms are downloaded from the web site of the firm for 2011.

The results of the study indicate that Market to Book Value, Free Float Ratio, and the Audit Firms are important determinants of corporate web transparency. However, we did not find significant support for the effect of corporate web transparency on the relationship of financial information and firm value.

The study consists of three chapters. In the first chapter of the study, corporate governance is defined and background of the corporate governance is discussed. Also corporate governance models and corporate governance applications in Turkey, for the listed firms and Small and Medium-Sized Enterprises (SMEs) are discussed in detail.

In the second chapter, definition of corporate transparency is given and corporate transparency and disclosure studies in Turkey are discussed. The relationship between corporate governance and company performance literature is analyzed.

The third chapter defines the research design; the empirical analysis of the firm level determinants of corporate web transparency score and the effect of corporate transparency to the firm performance for the listed firms at ISE by using corporate web transparency score. At the conclusion of the study, research results are given. Furthermore, limitations and suggestions for future research are also presented.

CHAPTER ONE

CORPORATE GOVERNANCE

1.1. CORPORATE GOVERNANCE

In corporate governance literature main researches began with Jensen & Meckling (1976: 5), define the principal-agent relationship as an agreement under which principals (shareholders) engage an agent (manager/director) to perform company management on their behalf. In this situation, if both parties are value maximizers, it is clear that the directors will not always act in the best interests of the shareholders. Since the relationship between the shareholders and the directors of a corporation fits the definition of a pure shareholder-director relationship, it can be concluded that the issues associated with the “separation of ownership and control” could be related to the agency problem.

OECD (2004: 11), defined corporate governance as:

“Corporate governance involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and should facilitate effective monitoring.”

“Corporate governance includes the set of institutional and market based mechanisms that promote managers (controllers) to maximize the firms’ value and also its shareholders (owners)” (Denis, 2001: 192).

Davis (2005), define the corporate governance, the institutions that make investments possible, from boards of directors, to legal frameworks and financial markets, to broader understandings of the corporation in society. Thus, corporate governance consists of “the whole set of legal, cultural, and institutional arrangements that determine what publicly traded corporations can do, who controls

them, how that control is exercised, and how the risks and returns from the activities they undertake are allocated” (Blair 1995: 3).

According to the Shleifer and Vishny (1997: 737), managers do not always act in the interests of their shareholders comes from the many event studies that have been done. Shleifer and Vishny (1997: 737), state that “*Corporate Governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment.*”

According to the OECD Principles of Corporate Governance (OECD, 2004), the corporate governance framework should ensure timely and accurately disclosure, which is made on all material matters regarding the corporation, which include the financial situation and performance, ownership, and governance of the company.

According to Oman et al., (2003: 6) corporate governance comprises a country’s private and public institutions which together govern the relationship between the people who manage corporations and all others who invest resources in corporations in the country.

The World Bank argues that these frameworks should be based on four ‘pillars’ - of responsibility, accountability, fairness and transparency (RAFT). In conjunction with the OECD Principles, these four pillars are keys to ensuring equitable growth and a flourishing private sector.

According to the Black, Jang and Kim (2003), companies with better corporate governance have better performance than companies with poor corporate governance.

The International Chamber of Commerce provides a definition of corporate governance: “*Corporate governance is the relationship between corporate managers, directors and the providers of equity, people and institutions who save and invest their capital to earn a return. It ensures that the board of directors is accountable for the pursuit of corporate objectives. And the corporation itself conforms to the law and regulation*” (ICCWBO, 2005).

1.2. BACKGROUND

Corporate governance has evolved over the years in response to corporate failures like, Maxell Corporation (1991), Enron (2001), WorldCom (2002), and Parmalat (2003). These failures results are loss of investor confidence and financial integrity of financial markets.

“The Cadbury Committee Report: Financial Aspects of Corporate Governance” was published in 1992. The reason for the establishment of this committee is sudden collapsed firms on the London Stock Exchange which has not been reflected in their financial statements. By following this report, the Hampel Committee was set up in 1995 and issued its final report in 1998 which highlighted the need for corporate governance to be based on principles. Additionally, the Greenbury Report and Code of Best Practice on the determinants of director’s remuneration were issued in 1995. These three codes aimed to improve corporate governance in the U.K. Then, the Combined Code (1998), providing a set of principles and codes to embrace the Cadbury, Greenbury, and Hampel recommendations, was published by the Hampel Committee (Short et al., 1999: 337).

Sarbanes–Oxley Act of 2002 in the U.S. provides the way public companies do business and how the accounting profession performs required audits. It has also strengthened the role of existing supervisory boards. (Rezaee, 2005: 285).

Gregory (2000: 18) states that the international agreement on a single model of corporate governance or a single governance rules is unlikely and unnecessary. On the other hand, first set of international corporate governance standards are discussed and adopted by the OECD member countries. (Iskander and Chamlou, 2000: 19).

Good corporate governance has been identified by the OECD and non-OECD countries. OECD standards firstly define a basis of effective corporate governance framework and continue with principles of governance. In the principles, six areas of concern are covered: (1) Ensuring the basis for an effective corporate governance framework, (2) the rights of shareholders, (3) the equitable treatment of shareholders, (4) the role of stakeholders in corporate governance, (5) disclosure and transparency, and (6) the responsibilities of the board as summarized in Table 1 (OECD, 2004a: 14).

Table 1: The Summary of OECD Corporate Governance Principles

I. Ensuring the Basis for an Effective Corporate Governance Framework	The corporate governance framework should promote transparent and efficient markets, be consistent with the rule of law and clearly articulate the division of responsibilities among different supervisory, regulatory and enforcement authorities.
II. The Rights of Shareholders and Key Ownership Functions	The corporate governance framework should protect and facilitate the exercise of shareholders' rights.
III. The Equitable Treatment of Shareholders	The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights.
IV. The Role of Stakeholders in Corporate Governance	The corporate governance framework should recognize the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises.
V. Disclosure and Transparency	The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company.
VI. The Responsibilities of the Board	The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders.

(Source: Summarized from OECD Corporate Governance Principles, 2004a:14)

1.3. CORPORATE GOVERNANCE MODELS

The legal framework, business doing culture and customs, regime of the country, development level of the financial markets as well as the practices of the companies are the factors, which affect corporate governance practices in a country. Although the definition of corporate governance varies from one country to another, there is no one universally accepted corporate governance model which fits all and is exercised in the entire world.

Mainly, the corporate governance models are distinguished into two which are called “outsider system” which is used in Anglo-Saxon countries, and “insider-system” that is mostly used in Continental Europe.

According to the Barker (2006), an insider model of corporate governance arises when owners of a company monitor oversee and take charge of the company from within. It will be achieved when owners take large ownership stakes and cooperating actively with management. Since Turkish companies exhibit a highly concentrated and centralized ownership structure, it is labeled as an insider system country.

A system in which the main governance functions are undertaken by external owners is defined as an outsider corporate governance system. In the outsider system, companies’ ownership is normally controlled by institutional investors. These owners undertake their domination functions ‘outside’ the company, and do not actively participate in the management of their companies (Barker, 2006).

1.4. CORPORATE GOVERNANCE IN TURKEY

First corporate governance code was issued by Turkish Industrialists’ and Businessmen’s Association (TUSIAD) and launched in December 2002 named “Corporate Governance Code of Best Practice: Composition and Functioning Board of Directors”.

CMB defined and issued Corporate Governance Principles in 2003 for the listed companies, and also New TCC requires SMEs to have websites and disclose certain information on it.

1.4.1. Listed companies

In 2003, the principles of corporate governance were defined by Capital Markets Board (CMB), which is summarized in table 2, for ensuring the companies to be aware of the principles and understanding their status across corporate governance principles. Capital Market Board and the CMB promulgated the

corporate governance principles for publicly held companies with the “comply or explain” basis in the year 2003.

Table 2: The Summary of CMB Corporate Governance Principles

I. Shareholders	1. Facilitating the Exercise of Shareholders’ Statutory Rights 2. Shareholders Right to Obtain and Evaluate Information 3. The Right to Participate in the General Shareholders’ Meeting 4. Voting Rights 5. Minority Rights 6. Dividend Rights 7. Transfer of Shares 8. Equal Treatment of Shareholders
II. Public Disclosure and Transparency	1. Principles and Means for Public Disclosure 2. Public Disclosure of Relations between the Company and Its Shareholders, The Board of Directors and Executives 3. Periodical Financial Statement and Reports in Public Disclosure 4. Functions of External Audit 5. The Concept of Trade Secret and Insider Trading 6. Significant Events and Developments That Must Be Disclosed to the Public
III. Stakeholders	1. Company Policy Regarding Stakeholders 2. Stakeholders’ Participation in the Company Management 3. Protection of Company Assets 4. Company Policy on Human Resources 5. Relations with Customers and Suppliers 6. Ethical Rules 7. Social Responsibility
IV. Board of Directors	1. Fundamental Functions of the Board of Directors

	2. Principles of Activity and Duties and Responsibilities of the Board of Directors 3. Formation and Election of the Board of Directors 4. Remuneration of the Board of Directors 5. Number, Structure and Independence of the Committees Established by the Board of Directors 6. Executives
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(Source: CMB Corporate Governance Principles, 2005: 3)

Since 2005, for listed companies in ISE it is obligatory to place "Corporate Governance Adaptation Report," in their annual reports.

A separate index was created under the name of the Corporate Governance Index in ISE at the end of August 2007. The index is created to measure the price performances and returns including dividend payments of the companies listed on the ISE by considering corporate governance scores determined by the corporate governance principles which were issued by the CMB. The corporate governance rating is determined by the rating institutions incorporated by CMB in its list of rating agencies as a result of their assessment of the company's compliance with the corporate governance principles as a whole.

According to the CMB survey results (2004), concept and content of corporate governance awareness is low. The companies should promote the use of electronic media in informing the shareholders. Partners see themselves as "partners", not as a "stock owner" and companies are not willing to share information with partners. The participation rate of general meeting is low, number of partners who requesting information from company is low. Companies are usually family control, the holding structure of mixed (financial and industrial), dominated by the Pyramid Group Structure. Being open to public ratio is usually low. Compliance with the principles has been following the principles of the CMB and the private sector provides support for compliance.

For listed companies in Turkey, Central Securities Depository Institution (CSD), generate electronic general meetings system which called e-GEM, and Turkey is the first country to require issuers to offer electronic proxy voting launched on October 2012, inauguration of a voting platform. The system will stream annual general meetings real time and let shareowners communicate with each other, vote before the meeting, and even change their vote as an annual meeting occurs. It is obligated for the ISE listed companies. On e-GEM, issuers can make convocation, publish proxy materials, prepare list of attendees and they can use the archives. On the other side, shareholders are notified of convocations materials, can watch the meeting on line, they send their opinions and questions to the chairman, they can use their vote right on line and before the meeting.

The Turkish Commercial Code Article No. 1524 obliges joint stock companies, which are subject to supervision, open a website and reserve a part of their website for publishing the announcements obligatory by law. Also CSD developed new portal with the completion of software development stage following the regulations of the Ministry of Customs and Commerce.

E-Company, companies' information portal that developed based on the legally required information and documents to be disclosed by hundreds of thousands of companies integrate with company web sites. On the e-Company portal, integrate information and documents with company web sites, provide required security levels, enable access from a single source and consistency, and establish data transmission to the Central Registry Number System (MERSIS) infrastructure. In this way, all documents that companies are required to publish on their web sites will be gathered in a single center and presentation of data and information on all companies in Turkey on specific criteria will be provided in a safe manner with the help of CSD.

The portal is active since October 2013 with the completion of software development stage following the regulations of the Ministry of Customs and Commerce.

1.4.2. Small and Medium-Sized Enterprises (SMEs)

The new Turkish Commercial Code, which was effective from 1 July 2012, ensures transparency through company's web site. According to the New TCC, all capital stock companies are obliged to create a Web site; if the company already has a Web site, it must allocate a section of its web site for "information society" services, to the use of shareholders and society.

The web site shall include all the reports and all the relevant data concerning creditors and investors; primarily all announcements that should be legally made by the company, annual reports, financial statements and audit reports. Penalties and sanctions shall apply if the company fails to fulfill these obligations.

The New Law defines "information society" as a society with access to information. The Web sites include all data that is relevant to the company and in which shareholders, minorities, creditors and stakeholders have an interest, documents and calls regarding General Assembly (GA) meetings, year-end and interim financial statements and merger and division balance sheets, audit reports (reports of auditor, operational auditor, special auditor, etc.), valuation reports, offers for exercising pre-emptive right, announcements related to liquidation, announcements related to action for cancellation.

Access to the Web site shall be available to everyone and shall be unrestricted, to ensure the right to and possibility of access. The Web site shall provide the means for electronic GA and board of members meetings and for electronic voting. The Web site is a complete, visual and electronic trade log. The Web site has introduced the concept of stakeholder into Turkish law. The content uploaded on the Web site is kept there for at least six months from the upload date, or it is deemed not to have been uploaded. For financial statements, this period is five years.

According to Tekinalp (2011), the New TCC redefines the rules governing commercial life in Turkey, with a modern approach that will help take Turkey to the next level in terms of transparency, auditability and reliability. The goals of the New TCC are to establish and sustain a system of commerce, industry and service supply at a consistently high level; to provide justice; to protect society and safeguard its

ethical values, and to focus on modern traders and companies, investors, transporters, the insured and SMEs – all areas in which competitive enterprises shape our economic environment and where the language of international markets is spoken.

According to the change made in the “Website” Article in the New TCC, the obligation of building a website imposed on all equity companies has been changed, only those equity companies subject to an independent audit. Additionally, the information that will be declared in these websites has been narrowed and the requirement for companies to publish various kinds of financial statements and reports on their websites has been removed. With this amendment, companies are now obliged only to publish legally required announcements on the website. And this website is required to be opened within the three months following July 1, 2013.

There is a new regulation which was published in 31.05.2013, for newly established companies, they are required to open the web site of the firm within three months from the registration of the company.

CHAPTER TWO

CORPORATE TRANSPARENCY, CORPORATE GOVERNANCE AND COMPANY PERFORMANCE

2.1. CORPORATE TRANSPARENCY

Corporate transparency is defined *“adopting, promoting, and developing new analytical methodologies those bring clarity and consistency to the information available to investors and analysts”* (Patel and Dallas, 2002: 14)

Availability of firm specific information to investors is one of the key drivers in economic growth, claiming that the firms in which better corporate governance principles adopted are more valuable (Brown and Caylor, 2004)

Bushman et al. (2003: 207) define corporate transparency as the availability of firm-specific information to those outside publicly traded firms, and it is conceptualized as an output from a multifaceted system whose components collectively produces, gather, validate and disseminate relevant information. They isolate two factors, governance transparency and financial transparency, as the important aspects of corporate transparency.

Aggarwal and Williamson (2006) state that, the firms were rewarded by the markets for having better governance during 2001-2005 in the USA. However, they find that there is no relation between the regulatory governance attributes and firm value, while governance attributes not mandated by regulations have been found to have a positive influence on company value.

Vishwanath and Kaufmann (2001: 42) state that *“transparency describes the increased flow of timely and reliable economic, social, and political information; about private investors’ use of loans and the creditworthiness of borrowers; about government service provision, monetary and fiscal policy; as well as about the activities of international institutions.”*

Oliver (2007), state that *“letting the truth be available for the others to see if they so choose or perhaps think to look or have the time, means, and skills to look.”*

Bushman and Smith (2003: 66), states the definition of corporate transparency that, *"Widespread availability of relevant, reliable information about the periodic performance, financial position, investment opportunities, governance, value, and risk of publicly traded companies"*.

Beeks and Brown (2005) found that firms with higher CG quality make more informative disclosures.

According to Balic (2007), analysis of the transparency and disclosure is evaluated by assessing the inclusion of 106 possible information attributes, and grouped into three subcategories, which are ownership structure and shareholder rights, financial transparency and information disclosure, board and management structure and process.

As a summary, corporate transparency and information disclosure are important elements of corporate governance, which increased investors' confidence and investment flows of the firm.

2.2. CORPORATE TRANSPARENCY AND DISCLOSURE STUDIES IN TURKEY

The regulatory institutions in capital markets of Turkey require that publicly held firms inform the public, which is a combination of shareholders, creditors and other stakeholders.

In 2003, Standard & Poor's (S&P), which is a credit ratings company, expanded its transparency and disclosure (T&D) study for the companies listed on the ISE. The S&P created T&D scoring methodology, according to the Corporate Governance Forum of Turkey at Sabancı University in İstanbul. The T&D study of the S&P includes 106 attributes extracted from publicly available sources under three subcategories, which are transparency level of ownership, financial disclosure, and board and management process. The S&P has been doing Turkish Transparency and Disclosure Survey for each year since 2003.

Aksu and Kosedag (2006) evaluated transparency and disclosure (T&D) quality as a main attribute of corporate governance practices of the 52 largest and

liquid firms quoted at ISE, using 106 T&D practices attributes, which defined by the S&P, grouped into three subcategories: disclosure of ownership structure and investor relations; financial T&D in the financial statements; and disclosure of the board and management structure. Their findings show that there is a positive correlation between the T&D level and accounting and market measures of firm performance. They reported that size is significant in explaining the variation in T&D practices, while leverage is not.

2.3. CORPORATE GOVERNANCE AND COMPANY PERFORMANCE

While the importance of corporate governance increases, one of the main research questions of this area is identifying the relationship between corporate governance and company performance.

According to OECD (2004) definitions;

“How well companies are run affects market confidence as well as company performance. Good corporate governance is therefore essential for companies that want access to capital and for countries that want to stimulate private sector investment. If companies are well run, they will prosper. This in turn will enable them to attract investors whose support can help to finance faster growth. Poor corporate governance on the other hand weakens a company’s potential and at worst can pave the way for financial difficulties and even fraud.”

According to La Porta et al., (2000), international corporate governance literature implies that countries with common law, market regulations, investor friendly systems and transparent accounting brings more liquid capital markets associated with low information asymmetry. And also where the civil law systems provide weak protection for investors, no capital market regulation and smaller transparent disclosure, brings less liquid and less efficient capital markets.

According to a McKinsey study (2002), 63% of investors cite good governance practices in a corporation as a key factor in their investment decisions and also it indicates that investors are willing to pay a premium of 27 percent for a well governed company in Turkey.

Brown and Caylor (2004) designed a measure of corporate governance score based on a 51 governance factors in eight categories: audit, board of directors, charter/bylaws, director education, executive and director compensation, ownership, progressive practices, and state of incorporation. The researcher link corporate governance score to operating performance, valuation, and shareholder payout for 2,327 firms. They find that better governed firms are relatively more profitable, more valuable and also pay out more cash dividend to their shareholders.

Aggarwal and Williamson (2006), state that the firms in the USA were rewarded by the markets for having better governance during 2001-2005. Those governance attributes are obtained from Institutional Shareholder Services (ISS) and eight sub categories are analyzed including board of directors, audit, charter/bylaws, anti-takeover provisions, ownership, executive and director compensation, progressive practices, and director education. They divide their sample according to firm size and industry in order to examine differences across size and industry. They use Tobin's Q for measuring of the performance of the firms. They conclude that corporate governance is important for firm value.

Gibson (2003), define a poor governance system is characterized as one that comprises closely held corporations often by the founding family, weak enforcement of shareholders' legal rights and the need to improve accountability and transparency.

Gompers, Ishii and Metrick (2003), build a Governance Index using the incidence of 24 governance rules for a sample of about 1,500 large firms during the 1990s. Their studies demonstrate that the firms with stronger shareholder rights have higher firm value, higher profits, higher sales growth and lower capital expenditures.

As a conclusion, the relation between corporate governance and firm performance is analyzed in several ways in the empirical literature. According to the corporate governance literature, better corporate governance leads to better firm performance. There are different measures of firm performance. Most widely used performance measures are Tobin's Q, return on asset and return on equity.

CHAPTER THREE

FIRM LEVEL DETERMINANTS OF CORPORATE WEB TRANSPARENCY AND ITS RELATION TO COMPANY PERFORMANCE AT ISTANBUL STOCK EXCHANGE

In the corporate governance literature, analysis of the relationship between corporate governance and firm performance has attracted much significance in recent years. The main argument is that better governed firms lead to higher performance.

There are two main motivations in this study. The main purpose is to identify the firm level determinants of corporate web transparency and second purpose is to find the effect of corporate web transparency on the relationship of financial information and firm value at Istanbul Stock Exchange (ISE) empirically. Hypothesis testing is employed to analyze the relationship between corporate web transparency and firm performance. In addition, it is also aimed to figure out whether better governed firms measured by high corporate web transparency score lead to higher firm performance.

3.1 RESEARCH DESIGN

In the beginning, the study aims to explore the firm level determinants of corporate web transparency and point out whether there is a relationship between corporate web transparency and firm performance. The score is a self-construct corporate web transparency score for firms listed at ISE. The scores are computed using their web sites and are based on the Corporate Governance Principles issued by CMB.

3.1.1 Sample Selection

The sample size of this research is limited by selecting firms among companies listed at the Istanbul Stock Exchange. The population of this study consists of all firms, excluding financial firms, insurance companies, and banks,

quoted at ISE index on year 2010. Therefore, there is a sample of 209 firms on hand to be analyzed.

3.1.2 Data Description

This study employs data on corporate transparency score and firm valuation measures in the model.

Data for measuring corporate web transparency is obtained from firms' web sites. Four different categories of score have been classified. Table 3 shows the corporate web transparency score sub categories.

Table 3: Corporate Transparency Score Check List

Investor Relations Section	Current Information	Corporate Governance (CG)	Communication Channels
Investor Relations link	Annual Reports	CG Link	Communication Information
Investor Presentations	Financial Statements	Ethical Policy	English Section
Information About Stock Transactions	Trade Registry Information	CG Compliance Reports	Frequently Asked Questions Section
Performance of the Company's Stock	The Articles of Association	CG Rating Reports and Scores	Social Media Channels of the Company
Investor Relations Calendar	Partnership Structure	Dividend and Capital Structure Information	Webcast of the General Meeting or Other Important Announcements
	General Meeting Agenda	Information Policy	
	Attorney For Meeting Disclosures	Board of Directors BoD decisions Management Team Analyst Reports Information of Analyst List of Insider Information	

Firstly, if the firm has investor relations section, they have got one point on their score. In investor relation section, the other determinants of score are investor relations calendar, investor presentations, information about stock transactions, and performance of the company's stock.

Current information is the second category which includes annual reports, financial statements, trade registry information, the articles of association, partnership structure, general meeting agenda and attorney for meeting, and also disclosures of the company.

Third section is about corporate governance section of the web sites. In this section, the parameters are ethical policy, corporate governance compliance reports, corporate governance rating reports and scores, dividend and capital structure information, information policy, board of directors and management team of the company, analyst reports and information of analyst and the list of insider information.

Last section is about communication channels of the company, which includes communication information of shareholders relations department, English section of the web sites for foreign investors, frequently asked question section for investors, and social media channels of the company, which help investors to reach company's information more easily, and webcast of the general meeting or other important announcements.

Balance sheets and income statements are downloaded from the website of the firm and database web sites as the year end of 2010. Firms' free float ratio and auditors of the firm are downloaded from disclosure platform, i.e. "www.kap.gov.tr".

3.1.3. Measuring Corporate Web Transparency Score

Total corporate web transparency score is calculated from four main sub-sections. The maximum points for each section are for the first category is 5, second category is 8, third category is 12, and fourth one is 5.

Four main sections of the score are composed as follows:

Total Corporate Web Transparency Score: CWT-S

Investor Relations: CWT-S1

Current Information: CWT-S2

Corporate Governance: CWT-S3

Communication Channel: CWT-S4

Total score is calculated as follows:

$$\text{CWT-S} = (\text{CWT-S1}) + (\text{CWT-S2}) + (\text{CWT-S3}) + (\text{CWT-S4})$$

3.1.4. Measuring Firm Level Determinants of Corporate Web Transparency

According to Cormier et al. (2009), performance disclosure determinants are profitability is measured as ROA, document a positive association between a firm's level of disclosure and its financial performance. Beta, which captures a firm's systematic risk, and Market to Book Value; they find that the higher the level of intangible capital as proxied by Market-to-book ratio, the higher the level of performance disclosure.

With the reference of the Cormier et al. (2009), in this framework, Return on Assets (ROA), Debt Ratio (DR), Earnings per Share (EPS), Market to Book Value (MTBV), Beta, Free Float Ratio (FFR), Ownership Concentration Rate (OCR), and the Audit Firm (Audit) will be used for measuring firm level determinants of corporate web transparency.

We explore the determinants of corporate web transparency score by using the following model:

$$\text{Corporate Web Transparency Score} = \alpha + \beta_1\text{ROA} + \beta_2\text{DR} + \beta_3\text{EPS} + \beta_4\text{MTBV} + \beta_5\text{B} + \beta_6\text{FFR} + \beta_7\text{OCR} + \beta_8\text{A} + \varepsilon$$

Where,

ROA: Net Income/ Total Assets

DR: Total Debts / Total Assets

EPS: Net Earnings / Outstanding Shares

MTBV: Market Value: Number of common stocks*Year-end closing price /

Book Value: Value of owners' equity

Beta: Systematic risk.

FFR: The percentage of shares those are freely available to the investing public.

OCR: The amount of stock owned by individual investors and large-block shareholders.

Audit: Audit firm of the firms which are quoted at ISE. It is a dummy variable and takes "1" if auditor is one big four, "0" otherwise.

3.1.5. Measuring Firm Performance

It appears that there is no best way for company performance measures. Those performance measures are grouped into two types, market based and accounting based measures.

From market based measures, Tobin's Q (Q) is often used a measure of the real value created by a firm's management which Bhagat and Bolton (2008) is already used.

The most widely used accounting based measures are return on asset and return on equity. (Peterson and Peterson, 1996:7), (Aksu and Kosedag, 2006).

The regression coefficient for the interaction term, Earnings per share*Web-based performance disclosure, allows to infer what variables moderate the impact of a firm's web-based performance disclosure on its earnings valuation multiple. (Cormier et al. 2009)

Within this framework, four different variables will be used for firm performance measures in the research. These performance measures are as follows;

1. Market Value to Book Value (MTBV)
2. Earnings per Share (EPS)
3. Corporate Web Transparency Score (CWT)
4. Earnings per Share * Corporate Web Transparency Score (EPSCWT)

The valuation implication from corporate web transparency disclosure, and its impact on the valuation of a firm's earnings, is assessed through the following model:

$$\text{Stock Price} = \alpha + \beta_1 \text{MTBV} + \beta_2 \text{EPS} + \beta_3 \text{CWT} + \beta_4 \text{EPSCWT} + \varepsilon$$

Where,

Stock Price: The stock price of 01.04.2011, the closing price of the day.

CWT: Corporate Web Transparency Score

MTBV: Market Value: Number of common stocks*Year-end closing price /

Book Value: Value of owners' equity

EPS: Net Earnings / Outstanding Shares

EPSCWT: Earnings per Share * Corporate Web Transparency Score

(Net Earnings / Outstanding Shares) * Corporate Web Transparency Score

3.2. METHODOLOGY AND HYPOTHESES

3.2.1. Structures of Hypotheses

As outlined above, the first purpose of this study is to explore the determinants of corporate web transparency.

Hypothesis 1: The corporate web transparency score of the firms are affected from firm level determinants.

The second purpose of this study is to explore the effect of corporate web transparency on the relationship of financial information and firm value. Brown and Caylor (2004) find that better-governed firms are relatively more profitable, more valuable, and pay more cash to their shareholders. According to Cormier et al. (2009), use the regression coefficient for the interaction term, Earnings per share multiplied by Web-based performance disclosure, which allow to infer what

variables moderate the impact of a firm's web-based performance disclosure on its earnings valuation multiple.

Hypothesis 2: The corporate web transparency score influences a firm's earnings valuation multiple.

3.2.2. Research Tools

Statistical Package for Social Sciences (SPSS) version 16.0 is used to analyze the results of the empirical study. Regression analysis is employed to investigate the relationship between corporate web transparency and firm level determinants, and the relationship between corporate web transparency and firm performance.

3.3. EMPIRICAL RESULTS

Empirical results of this study are summarized in this part. In first part of this section descriptive statistics of the results are given. In the next part, more detailed empirical results are discussed and hypothesis testing is analyzed.

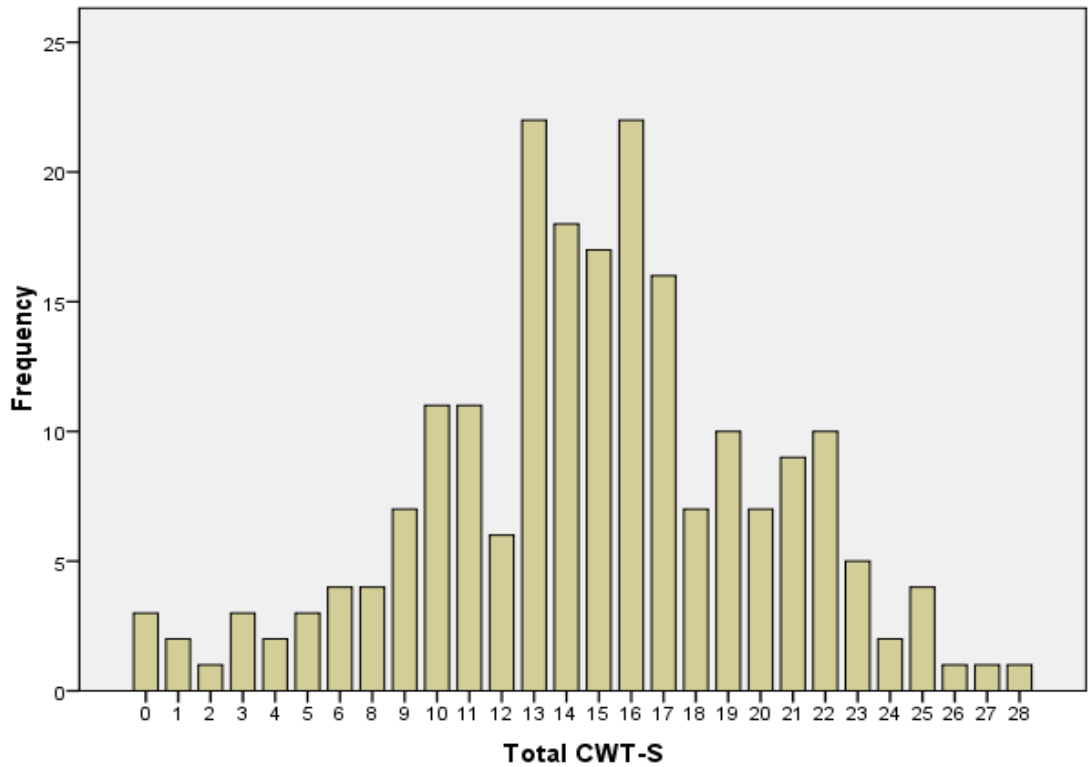
3.3.1. Descriptive Statistics

As mentioned before, maximum available CWT-S score is 30, but Table 4 shows that the maximum CWT-S which can be reached by the firms is 28, the mean of 209 firms is 14,76. Only in investor relations sub categories the highest score cannot be reached and the corporate governance category has lower mean than the other sub categories. There are three firms which their web sites can not be reached.

Table 4: Components of CWT Score

N:209	Minimum	Maximum	Mean	Standard deviation
Investor Relations	0	4	1,82	1,133
Current Information	0	8	6,65	1,901
Corporate Governance	0	12	4,58	2,675
Communication Channels	0	5	1,70	1,152
Total Score	0	28	14,76	5,457

Figure 1: Histogram of Corporate Web Transparency Score



In our study firstly, the sector is the one of the determinant of the firm's corporate web transparency score. Firms in our sample is classified into twelve sectors; food, telecoms/information technologies (IT), construction, chemical, mining/metal, textile, energy, holding, media, service, commerce, transportation. The highest score which is 28 is get only one firm which is in telecoms/IT sector. Table 5 presents sectoral breakdown of the sample firms, which shows that, the firm with higher CWT score is in holding, telecoms/IT sectors and transportation sectors. On the other hand; textile, service and food sectors include the lower score firms.

Table 5: Sectoral Breakdown of the Sample

N:267					
Sector	Frequency	Valid Percent	Mean of CWT-S	Minimum	Maximum
Food	20	9,60	13,00	0,00	25,00
Telecoms/IT	13	6,20	17,62	7,00	28,00
Construction	33	15,80	13,97	3,00	21,00
Chemical	21	10,00	16,67	4,00	27,00
Mining/Metal	45	21,50	15,04	0,00	25,00
Textile	13	6,20	10,62	0,00	19,00
Energy	5	2,40	16,40	11,00	20,00
Holding	13	6,20	18,31	8,00	24,00
Media	20	9,60	15,05	9,00	23,00
Service	9	4,30	9,89	0,00	22,00
Commerce	11	5,30	14,09	7,00	20,00
Transportation	6	2,90	17,33	10,00	24,00
Total	209	100,00	14,76	0,00	28,00

Table 6 shows that, sectoral allocation of the CWT score, to the subcategories. The higher mean in the subcategories, are in holding sector in CWTS1 and CWTS4. The telecoms/IT sector is leader in CWTS2 and transportation is in CWTS3. The lowest score in CWTS1 and CWTS2 is in service sector and CWTS3 and CWTS4 in textile sector.

Table 6: Sectoral Allocations of CWT Score to Sub-Categories

N:209

	CWT-S1			CWT-S2			CWT-S3			CWT-S4		
Sector	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean
Food	0,00	4,00	1,95	0,00	8,00	5,45	0,00	10,00	3,85	0,00	5,00	1,75
Telecoms/IT	1,00	4,00	2,00	6,00	8,00	7,46	1,00	11,00	5,69	0,00	5,00	2,46
Construction	0,00	3,00	1,42	2,00	8,00	7,15	0,00	9,00	3,94	0,00	3,00	1,45
Chemical	1,00	4,00	2,24	2,00	8,00	7,05	0,00	12,00	5,48	0,00	3,00	1,90
Mining/Metal	0,00	4,00	1,89	0,00	8,00	6,67	0,00	12,00	4,60	0,00	5,00	1,87
Textile	0,00	2,00	1,31	1,00	8,00	5,69	0,00	5,00	2,46	0,00	3,00	1,15
Energy	0,00	4,00	2,00	5,00	8,00	6,80	3,00	7,00	5,40	1,00	3,00	2,20
Holding	1,00	4,00	2,62	5,00	8,00	7,08	2,00	10,00	6,54	1,00	3,00	2,08
Media	1,00	4,00	1,60	5,00	8,00	7,25	2,00	9,00	4,95	0,00	4,00	1,25
Service	0,00	4,00	1,11	0,00	8,00	5,33	0,00	7,00	2,56	0,00	3,00	0,89
Commerce	1,00	4,00	1,64	4,00	8,00	6,45	1,00	7,00	4,45	0,00	3,00	1,55
Transportation	1,00	4,00	2,50	4,00	7,00	6,00	2,00	11,00	6,67	1,00	3,00	2,17
Total	0,00	4,00	1,82	0,00	8,00	6,39	0,00	12,00	4,31	0,00	5,00	1,52

3.3.2. Empirical Results

The empirical findings for the regression analysis of our first hypothesis are given in tables below for the model to predict each corporate web transparency score. As mentioned earlier in the chapter, corporate web transparency score comprises four different scores. Thus, regression models are derived in order to test total score and four integral parts.

Table 7 summarizes regression results of the overall corporate web transparency score as the dependent variable and ROA, debt ratio, EPS, MTBV, Beta, Free Float Ratio, ownership concentration rate, and the audit firm as the independent variable. The related regression is as follows:

$$\text{Corporate Web Transparency Score} = \alpha + \beta_1\text{ROA} + \beta_2\text{DR} + \beta_3\text{EPS} + \beta_3\text{MTBV} + \beta_4\text{B} + \beta_5\text{FFR} + \beta_6\text{OCR} + \beta_7\text{A} + \varepsilon$$

As seen on Table 7, dependent variables predict corporate web transparency at a level of 11,8%. Since Durbin-Watson value is close to “2”, no auto-correlation is observed. Consequently the model is statistically significant and may predict the changes in corporate web transparency ($F=4,151$, $p<0,01$).

Table 7: Model Summary, Corporate Web Transparency Score is Dependent Variable

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,395 ^a	,156	,118	5,165	,156	4,151	8	180	,000	1,789

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS

In a multiple regression model, null hypothesis (H_0) is stated that all coefficients are equal to zero ($H_0: \beta_1=\beta_2=\dots=\beta_p=0$) whereas alternate hypothesis (H_a) advocates that at least one of the coefficients significantly differ from zero. For significance of individual parameters t-test is employed while that of model is tested by F-test.

Table 8: ANOVA, Corporate Web Transparency Score is Dependent Variable

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	885,689	8	110,711	4,151	,000 ^a
	Residual	4801,263	180	26,674		
	Total	5686,952	188			

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS

With information displayed on Table 8 above, it is concluded that regression model comprising independent variables to predict dependent variable corporate web transparency is significant ($F=4,151$, $p<0,01$).

Table 9 indicates coefficients of independent variables and significance levels. It is obvious that not all coefficients are significant to predict dependent variable. Only three variables (MTBV ($\beta=-0,225$, $p<0,01$), FFR ($\beta=0,196$, $p<0,05$) and AUDIT ($\beta=0,308$, $p<0,01$)) seem to predict corporate web transparency. MTBV has a significant and negative effect on corporate web transparency that a unit change will lead to a decrease at 22,5%. Likewise, FFR has a significant and positive effect on corporate web transparency that a unit change will lead to an increase at 19,6%. Similarly, AUDIT has a significant and positive effect on corporate web transparency that a unit change will lead to an increase at 30,8%.

Table 9: Coefficients, Corporate Web Transparency Score is Dependent Variable
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8,989	2,279		3,945	,000
	ROA	,035	,045	,063	,780	,436
	DR	,016	,018	,066	,885	,377
	EPS	-,119	,239	-,038	-,498	,619
	MTBV	-,216	,069	-,225	-3,148	,002
	BETA	,823	1,649	,035	,499	,618
	FFR	,060	,027	,196	2,223	,027
	OCR	,016	,021	,067	,767	,444
	AUDIT	3,437	,819	,308	4,197	,000

a. Dependent Variable: CWTS

Table 10 summarizes regression results of the first part of corporate web transparency score (CWTS1) as the dependent variable and ROA, debt ratio, EPS, MTBV, Beta, Free Float Ratio, ownership concentration rate, and the audit firm as the independent variable. The related regression is as follows:

$$CWTS1 = \alpha + \beta_1 ROA + \beta_2 DR + \beta_3 EPS + \beta_4 MTBV + \beta_5 B + \beta_6 FFR + \beta_7 OCR + \beta_8 A + \varepsilon$$

As seen on Table 10, dependent variables predict corporate web transparency at a level of 7,7%. Since Durbin-Watson value is close to “2”, no auto-correlation is observed. Consequently the model is statistically significant and may predict the changes in corporate web transparency (F=2,97, p<0,01).

Table 10: Model Summary, Corporate Web Transparency Score 1 is Dependent Variable**Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	
1	,341 ^a	,117	,077	1,071	,117	2,970	8	180	,004	2,135

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS1

By means of ANOVA table indicated below, model's significance is tested by F-test. It is seen that the model is significant that corporate web transparency score (1) is predicted.

Table 11: ANOVA, Corporate Web Transparency Score 1 is Dependent Variable**ANOVA^b**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	27,254	8	3,407	2,970	,004 ^a
Residual	206,502	180	1,147		
Total	233,757	188			

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS1

With information displayed on Table 11 above, it is concluded that regression model comprising independent variables to predict dependent variable corporate web transparency score is significant ($F=2,97$, $p<0,01$).

Table 12 indicates coefficients of independent variables and significance levels. AUDIT ($\beta=0,306$, $p<0,01$)) seems to significantly predict corporate web transparency. AUDIT has a significant and positive effect on corporate web transparency that a unit change will lead to an increase at 30,6%. Also MTBV has a significant and negative effect on corporate web transparency score that a unit change will lead to a decrease 13,2%. Debt Ratio has a significant and positive effect on corporate web transparency that a unit change will lead to an increase 14%.

Table 12: Coefficients, Corporate Web Transparency Score 1 is Dependent Variable

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,883	,473		1,869	,063
ROA	,004	,009	,038	,462	,644
DR	,007	,004	,140	1,834	,068
EPS	,041	,049	,063	,819	,414
MTBV	-,026	,014	-,132	-1,809	,072
BETA	,143	,342	,030	,419	,676
FFR	,005	,006	,074	,814	,417
OCR	,000	,004	-,020	-,218	,828
AUDIT	,692	,170	,306	4,073	,000

a. Dependent Variable: CWTS1

Table 13 summarizes regression results of the second part of corporate web transparency score (CWTS2) as the dependent variable and ROA, debt ratio, EPS, MTBV, Beta, Free Float Ratio, ownership concentration rate, and the audit firm as the independent variable. The related regression is as follows:

$$CWTS2 = \alpha + \beta_1 ROA + \beta_2 DR + \beta_3 EPS + \beta_4 MTBV + \beta_5 B + \beta_6 FFR + \beta_7 OCR + \beta_8 A + \varepsilon$$

As seen on Table 13, dependent variables predict corporate web transparency at a level of 6,8%. Since Durbin-Watson value is close to “2”, no auto-corelation is observed. Consequently the model is statistically significant and may predict the changes in corporate web transparency (F=2,716, p<0,01).

Table 13: Model Summary, Corporate Web Transparency Score 2 is Dependent Variable**Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,328 ^a	,108	,068	1,890	,108	2,716	8	180	,008	1,773

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS2

By means of ANOVA table indicated below, model's significance is tested by F-test. It is seen that the model is significant that corporate web transparency score (2) is predicted.

Table 14: ANOVA, Corporate Web Transparency Score 2 is Dependent Variable**ANOVA^b**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	77,619	8	9,702	2,716	,008 ^a
Residual	642,952	180	3,572		
Total	720,571	188			

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS2

With information displayed on Table 14 above, it is concluded that regression model comprising independent variables to predict dependent variable corporate web transparency score is significant ($F=2,716$, $p<0,01$).

Table 15 indicates coefficients of independent variables and significance levels. It is obvious that only one coefficient is significant to predict dependent variable. MTBV ($\beta=-0,292$, $p<0,01$) seems to significantly predict corporate web transparency. MTBV has a significant and negative effect on corporate web transparency that a unit change will lead to a decrease at 29,2%.

Table 15: Coefficients, Corporate Web Transparency Score 2 is Dependent Variable**Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5,854	,834		7,020	,000
ROA	-,002	,017	-,011	-,132	,895
DR	-,004	,007	-,045	-,582	,561
EPS	-,054	,087	-,048	-,621	,536
MTBV	-,100	,025	-,292	-3,978	,000
BETA	,195	,603	,023	,323	,747
FFR	,014	,010	,125	1,379	,170
OCR	,012	,008	,139	1,541	,125
AUDIT	,122	,300	,031	,406	,685

a. Dependent Variable: CWTS2

Table 16 summarizes regression results of the first part of corporate web transparency score (CWTS3) as the dependent variable and ROA, debt ratio, EPS, MTBV, Beta, Free Float Ratio, ownership concentration rate, and the audit firm as the independent variable. The related regression is as follows:

$$CWTS3 = \alpha + \beta_1ROA + \beta_2DR + \beta_3EPS + \beta_3MTBV + \beta_4B + \beta_5FFR + \beta_6OCR + \beta_7A + \varepsilon$$

As seen on Table 16, dependent variables predict corporate web transparency at a level of 12,2%. Since Durbin-Watson value is close to “2”, no auto-correlation is observed. Consequently the model is statistically significant and may predict the changes in corporate web transparency ($F=4,25$, $p<0,01$).

Table 16: Model Summary, Corporate Web Transparency Score 3 is Dependent Variable**Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	
1	,399 ^a	,159	,122	2,496	,159	4,250	8	180	,000	1,861

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS3

By means of ANOVA table indicated below, model's significance is tested by F-test. It is seen that the model is significant that corporate web transparency score (3) is predicted.

Table 17: ANOVA, Corporate Web Transparency Score 3 is Dependent Variable

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	211,815	8	26,477	4,250	,000 ^a
Residual	1121,328	180	6,230		
Total	1333,143	188			

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS3

With information displayed on Table 17 above, it is concluded that regression model comprising independent variables to predict dependent variable corporate web transparency score is significant ($F=4,25$, $p<0,01$).

Table 18 indicates coefficients of independent variables and significance levels. It is obvious that only one coefficient is significant to predict dependent variable. AUDIT ($\beta=0,353$, $p<0,01$) seems to significantly predict corporate web transparency. AUDIT has a significant and positive effect on corporate web transparency that a unit change will lead to an increase at 35,3%. FFR has also significant and positive effect on corporate web transparency that a unit change will lead to an increase at 20,9%. MTBV has a significant and negative effect on corporate web transparency that a unit change will lead to a decrease at 14,8%.

Table 18: Coefficients, Corporate Web Transparency Score 3 is Dependent Variable**Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,520	1,101		1,380	,169
ROA	,025	,022	,091	1,135	,258
DR	,009	,009	,076	1,024	,307
EPS	-,059	,115	-,038	-,509	,612
MTBV	-,069	,033	-,148	-2,074	,039
BETA	,697	,797	,061	,874	,383
FFR	,031	,013	,209	2,367	,019
OCR	,002	,010	,014	,155	,877
AUDIT	1,909	,396	,353	4,823	,000

a. Dependent Variable: CWTS3

Table 19 summarizes regression results of the fourth part of corporate web transparency score (CWTS4) as the dependent variable and ROA, debt ratio, EPS, MTBV, Beta, Free Float Ratio, ownership concentration rate, and the audit firm as the independent variable. The related regression is as follows:

$$CWTS4 = \alpha + \beta_1 ROA + \beta_2 DR + \beta_3 EPS + \beta_4 MTBV + \beta_5 B + \beta_6 FFR + \beta_7 OCR + \beta_8 A + \varepsilon$$

As seen on Table 19, dependent variables predict corporate web transparency at a level of 7,7%. Since Durbin-Watson value is close to “2”, no auto-correlation is observed. Consequently the model is statistically significant and may predict the changes in corporate web transparency (F=2,965, p<0,01).

Table 19: Model Summary, Corporate Web Transparency Score 4 is Dependent Variable**Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	
1	,341 ^a	,116	,077	1,133	,116	2,965	8	180	,004	1,782

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS4

By means of ANOVA table indicated below, model's significance is tested by F-test. It is seen that the model is significant that corporate web transparency score (4) is predicted.

Table 20: ANOVA, Corporate Web Transparency Score 4 is Dependent Variable**ANOVA^b**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	30,465	8	3,808	2,965	,004 ^a
Residual	231,196	180	1,284		
Total	261,661	188			

a. Predictors: (Constant), AUDIT, EPS, BETA, MTBV, DR, OCR, ROA, FFR

b. Dependent Variable: CWTS4

With information displayed on Table 20 above, it is concluded that regression model comprising independent variables to predict dependent variable corporate web transparency score is significant ($F=2,965$, $p<0,01$).

Table 21 indicates coefficients of independent variables and significance levels. It is obvious that only one coefficient is significant to predict dependent variable. AUDIT ($\beta=0,306$, $p<0,01$) seems to significantly predict corporate web transparency. AUDIT has a significant and positive effect on corporate web transparency that a unit change will lead to an increase at 30,6%.

Table 21: Coefficients, Corporate Web Transparency Score 4 is Dependent Variable**Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,701	,500		1,403	,162
ROA	,008	,010	,067	,809	,420
DR	,004	,004	,082	1,081	,281
EPS	-,045	,052	-,067	-,863	,389
MTBV	-,021	,015	-,104	-1,426	,156
BETA	-,232	,362	-,046	-,642	,522
FFR	,011	,006	,173	1,916	,057
OCR	,004	,005	,073	,811	,419
AUDIT	,732	,180	,306	4,076	,000

a. Dependent Variable: CWTS4

As a summary, the empirical findings for the regression analysis of our first hypothesis are independent variables which are ROA, DR, EPS, MTBV, Beta, FFR, OCR and Audit predict dependent variable which are CWTS, CWTS1, CWTS2, CWTS3, CWTS4. When CWTS is dependent variable, MTBV, FFR, and Audit seem to predict corporate web transparency. MTBV has a significant and negative effect; FFR and Audit have a significant positive effect on the total score. When CWTS1 is dependent variable, the results are similar with the total score where, MTBV has a significant and negative effect; FFR and Audit have a significant positive effect. When CWTS2 is dependent variable, only MTBV has a significant and negative effect. When CWTS3 is dependent variable, MTBV has a significant and negative effect; FFR and Audit have a significant positive effect. Lastly, when CWTS4 is dependent variable, Audit has a significant and positive effect on corporate web transparency.

Our Second Hypothesis advocate that corporate web transparency score influences a firm's earnings valuation. In order to test the hypothesis, below model is derived:

$$\text{Stock Price} = \alpha + \beta_1 \text{MTBV} + \beta_2 \text{EPS} + \beta_3 \text{CWT} + \beta_4 \text{EPSCWT} + \varepsilon$$

Where,

Stock Price: The stock price of 01.04.2011, the closing price of the day.

CWT: Corporate Web Transparency Score

MTBV: Market Value: Number of common stocks*Year-end closing price /

Book Value: Value of owners' equity

EPS: Net Earnings / Outstanding Shares

EPSCWT: Earnings per Share * Corporate Web Transparency Score

(Net Earnings / Outstanding Shares) * Corporate Web Transparency Score

As seen on Table 22, dependent variables predict stock price at a level of 43,4%. Since Durbin-Watson value is close to "2", no auto-correlation is observed. Consequently the model is statistically significant and may predict the changes in stock prices (F=38,931, p<0,01).

Table 22: Model Summary, Stock Price is Dependent Variable

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,667 ^a	,445	,434	32,0755812	,445	38,931	4	194	,000	2,078

a. Predictors: (Constant), eppsscore, mtbv, eps, score

b. Dependent Variable: Stock Price

By means of ANOVA table indicated below, model's significance is tested by F-test. It is seen that the model is significantly predictable that corporate web transparency score, market value to book value ratio, earnings per share and cross product of first and last variables have effects on stock prices.

Table 23: ANOVA, Stock Price is Dependent Variable**ANOVA^b**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	160215,410	4	40053,853	38,931	,000 ^a
Residual	199595,524	194	1028,843		
Total	359810,935	198			

a. Predictors: (Constant), eppsscore, mtbv, eps, score

b. Dependent Variable: Stock Price

In order to determine which variables have significant effects, t-test is employed and results are displayed on Table 24 below. It is obvious that not all coefficients are significant to predict dependent variable. Only two of the variables (MTBV ($\beta=0,416$, $p<0,01$) and EPS ($\beta=0,512$, $p<0,01$) seem to predict stock price. On the other side, corporate web transparency score and cross product of that and EPS do not have significant effects. MTVB has a significant and positive effect on stock price that a unit change will lead to an increase at 41,6%. Likewise, EPS has a significant and positive effect on stock price that a unit change will lead to an increase at 51,2%.

Table 24: Coefficients, Stock Price is Dependent Variable**Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	7,515	6,950		1,081	,281
Mtbv	3,182	,422	,416	7,548	,000
Eps	11,181	1,189	,512	9,403	,000
Score	,001	,426	,000	,002	,998
Eppscore	,001	,041	,001	,015	,988

a. Dependent Variable: Stock Price

As a result of the second hypothesis, we did not find significant support for the effect of web transparency on the relationship of financial information and firm valuation. Web usages by current shareholders are low because it is new application; we expect that it will be more effective in the future due to higher web usage.

CONCLUSION

The importance of corporate governance and also its one of the important part; corporate transparency is increased in recent years, after the big corporate scandals like Enron (2001), WorldCom (2002), and Parmalat (2003) in the world.

Sarbanes Oxley Act increased regulation in the U.S., on the other hand, OECD countries published a set core principles of corporate governance.

In Turkey, CMB defined and issued Corporate Governance Principles in 2003 for the listed companies, and also New TCC requires SMEs to have websites and disclose certain information on it.

While these developments occurring in the field of corporate governance and corporate transparency, the first purpose of this study is to identify firm level determinants of corporate web transparency of the non-financial firms which are quoted at ISE. The second purpose of the study is to explore the effect of corporate web transparency on the relationship of financial information and firm value

In the first chapter, corporate governance is defined and background of the corporate governance, corporate governance in Turkey, for the listed firms and SMEs are discussed. In the second chapter, definition of corporate transparency is given and corporate transparency and disclosure studies in Turkey are discussed and the relationship between corporate governance and company performance literature is analyzed. The third chapter defines the research design; the empirical analysis of the firm level determinants of corporate web transparency score and the effect of corporate transparency to the firm performance.

For the empirical analysis, there is a self-construct corporate web transparency score for firms listed at ISE. The scores are computed using their web sites and are based on the Corporate Governance Principles issued by CMB. The sample size is limited that firms at ISE for the year end 2010, for non financial firms; so there is a sample of 209 firms on hand.

Data for measuring corporate web transparency is obtained from firms' web sites and database web sites. Corporate web transparency attributes, which are 30 in total for each company, are extracted from web sites of the publicly held firms, and

they are converted into four different subcategories, which are investor relations, current information, corporate governance policies and communication channel.

In this framework, ROA, DR, EPS, MTBV, Beta, FFR, OCR, and the Audit Firm are used for measuring firm level determinants of corporate web transparency. Also four different variables will be used for firm earnings valuation measures; stock price is dependent variable where MTBV, EPS, Corporate Web Transparency Score, and Earnings per Share multiplied by Corporate Web Transparency Score are independent variables.

The empirical findings for the regression analysis of our first hypothesis show that the model is statistically significant and may predict the changes in corporate web transparency. In addition four different subcategories also analyzed for the determinants of the firm corporate web transparency. The results of the first hypothesis indicate that Market to Book Value, Free Float Ratio, and the Audit Firms are important determinants of corporate web transparency. Unexpectedly, MTBV has a significant and negative effect. FFR and Audit have a significant positive effect on the total score as expected, the percentages of shares which are available to the investing public have effect the firms' to be more transparent and big audit firms' advice the listed firm to be more transparent.

For the second hypothesis, we did not find significant support for the effect of corporate web transparency on the relationship of financial information and firm value. Web usages by current shareholders are low because it is new application; we expect that it will be more effective in the future due to higher web usage.

Several limitations of the study should be noted. Firstly, the sample is restricted to only non-financial firms at ISE. Secondly, corporate web transparency score which is a self-construct score can be subjective and it cannot be real time because of the firm's web site can be update from 2011.

For further studies, it would be useful to extend the timeline of this study with a longitudinal study whether to see the improvements of firm score and performance of the firm. Also MTBV which has a significant and negative effect, can be analyzed for further studies, if it is related to the size of the firm or not.

In the light of this study, evolution of corporate governance and corporate transparency is continuing, e-GEM and E-Company applications are improving the importance of the framework.

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APPENDICES

APPENDIX 1: Sector and CWT Score of Listed Firms

EQUITY	SECTOR	CWTS1	CWTS2	CWTS3	CWTS4	CWTS
ACIBD	4	3	7	7	2	19
ADANA	3	2	7	6	2	17
ADBGR	3	2	7	6	2	17
ADEL	9	3	7	5	0	15
ADNAC	3	2	7	6	2	17
AEFES	1	4	6	7	4	21
AFMAS	4	1	8	5	1	15
AFYON	3	1	7	5	1	14
AKALT	6	2	7	3	1	13
AKCNS	3	2	7	9	3	21
AKENR	7	4	7	7	2	20
AKFEN	8	3	7	5	2	17
AKSA	4	1	7	7	2	17
AKSEN	7	2	7	7	2	18
AKSUE	7	0	5	3	3	11
ALARK	8	3	8	7	3	21
ALCAR	5	4	8	4	3	19
ALCTL	2	1	7	4	4	16
ALKA	9	1	6	4	0	11
ALKIM	4	2	7	4	2	15
ALTIN	6	1	6	3	1	11
ALYAG	1	3	7	5	1	16
ANACM	3	1	8	3	1	13
ANELE	3	1	7	6	2	16
ANELT	2	1	8	5	2	16
ARCLK	5	4	6	6	5	21
ARENA	2	1	8	1	1	11
ARSAN	6	0	5	1	0	6
ASELS	2	1	8	5	3	17
ASUZU	5	1	7	5	2	15
ATEKS	6	1	7	4	2	14
AYEN	7	1	7	4	1	13
AYGAZ	4	3	8	7	3	21
BAGFS	4	1	2	0	1	4
BAKAB	9	1	8	4	0	13
BANVT	1	2	2	1	1	6
BFREN	5	0	0	0	0	0
BIMAS	11	2	6	5	2	15
BIZIM	11	3	8	6	3	20
BJKAS	10	1	8	7	3	19
BOLUC	3	2	8	5	2	17
BOSSA	6	2	7	5	3	17
BOYNR	11	2	7	4	3	16

EQUITY	SECTOR	CWTS1	CWTS2	CWTS3	CWTS4	CWTS
BRISA	5	2	7	3	2	14
BROVA	3	2	8	1	2	13
BRSAN	5	2	7	5	2	16
BSHEV	5	1	8	4	1	14
BSOKE	3	1	6	2	1	10
BTCIM	3	1	6	2	1	10
BUCIM	3	1	8	3	0	12
BURCE	5	2	8	1	3	14
BURVA	5	2	8	1	3	14
CARFA	11	1	8	5	1	15
CARFB	11	1	8	5	1	15
CCOLA	1	4	8	10	3	25
CELHA	5	1	5	2	2	10
CEMTS	5	2	8	2	2	14
CIMSA	3	2	8	5	3	18
CLEBI	12	3	6	7	3	19
CMBTN	3	0	2	0	1	3
CMENT	3	0	2	0	1	3
COMDO	5	2	2	4	2	10
DENCM	3	1	8	3	1	13
DENTA	9	1	7	6	2	16
DERIM	6	1	1	0	1	3
DESA	6	2	7	2	2	13
DEVA	4	1	8	3	2	14
DGZTE	9	2	7	6	1	16
DITAS	5	1	7	4	2	14
DMSAS	5	1	8	4	1	14
DOAS	5	4	8	8	2	22
DOBUR	9	2	8	4	1	15
DOCO	12	4	4	2	1	11
DOHOL	8	3	8	8	3	22
DURDO	9	1	8	4	1	14
DYHOL	8	4	7	10	1	22
DYOBY	4	4	8	7	3	22
ECILC	4	4	7	6	2	19
ECYAP	3	3	8	5	2	18
EGEEN	5	1	6	5	1	13
EGGUB	4	1	7	3	0	11
EGSER	3	1	5	3	0	9
EMKEL	4	1	7	4	2	14
EMNIS	5	1	2	1	1	5
ENKAI	3	2	7	5	2	16
ERBOS	5	1	6	4	0	11
EREGL	5	2	8	9	2	21
ERSU	1	1	8	3	1	13

EQUITY	SECTOR	CWTS1	CWTS2	CWTS3	CWTS4	CWTS
ESCOM	2	1	6	2	1	10
FENER	10	1	5	1	1	8
FENIS	3	1	8	2	1	12
FMIZP	5	1	0	0	0	1
FRIGO	1	0	0	1	1	2
FROTO	5	3	5	7	1	16
FVORI	10	0	6	1	2	9
GENTS	9	1	6	6	1	14
GEREL	5	2	6	6	2	16
GOLDS	5	2	7	6	2	17
GOLTS	3	1	8	1	1	11
GOODY	5	1	6	4	0	11
GSDHO	8	1	6	2	2	11
GSRAY	10	4	4	4	1	13
GUBRF	4	3	5	4	1	13
HEKTS	4	1	8	4	1	14
HURGZ	9	4	7	9	3	23
HZNDR	3	1	7	1	0	9
IDAS	9	1	8	6	1	16
IHEVA	5	3	8	9	2	22
IHGZT	9	2	8	8	2	20
IHLAS	8	3	8	9	3	23
IHYAY	8	1	7	5	3	16
INDES	2	4	7	5	3	19
INTEM	3	2	8	3	2	15
IPMAT	9	1	7	2	0	10
ITTFH	8	2	7	8	2	19
IZMDC	5	2	7	3	3	15
IZOCM	3	1	8	4	3	16
KAPLM	9	1	6	2	0	9
KAREL	2	2	7	6	2	17
KARSN	5	3	8	6	3	20
KARTN	9	1	8	4	2	15
KCHOL	8	3	8	8	2	21
KENT	1	0	0	0	1	1
KERVY	1	2	8	3	1	14
KILER	11	1	5	1	1	8
KIPA	11	1	5	3	1	10
KLBM0	9	1	8	3	1	13
KLMSN	5	1	7	1	0	9
KNFRT	1	1	7	2	0	10
KONYA	3	3	8	6	1	18
KORDS	5	2	8	5	2	17
KOZAA	5	1	7	2	3	14
KOZAL	5	2	7	2	3	14

EQUITY	SECTOR	CWTS1	CWTS2	CWTS3	CWTS4	CWTS
KRDMA	5	1	8	4	3	16
KRDMB	5	1	8	4	3	16
KRDMD	5	1	8	4	3	16
KRSTL	1	1	8	7	1	17
KRTEK	6	1	8	3	1	13
KUTPO	3	1	7	2	0	10
LATEK	12	1	7	5	2	15
LINK	2	1	8	4	0	13
LOGO	2	3	8	9	4	24
LUKSK	6	1	7	3	1	12
MAALT	10	1	8	3	1	13
MARTI	10	2	7	4	0	13
MERKO	1	0	4	1	0	5
MGROS	11	4	6	7	3	20
MIPAZ	11	1	7	4	0	12
MNDRS	6	1	3	2	0	6
MRDIN	3	2	8	7	1	18
MRSHL	4	1	6	2	1	10
MUTLU	5	1	8	4	0	13
NETAS	2	1	7	6	1	15
NTHOL	8	3	6	3	1	13
NTTUR	10	0	0	0	0	0
NUHCM	3	2	8	4	2	16
OLMKS	9	1	7	3	2	13
OTKAR	5	3	8	7	3	21
PARSN	5	3	8	3	0	14
PENGD	1	2	4	1	1	8
PETKM	4	4	8	12	3	27
PETUN	1	4	7	6	5	22
PIMAS	3	1	8	6	1	16
PINSU	1	4	7	7	5	23
PKART	2	2	8	6	2	18
PNSUT	1	4	7	7	5	23
PRKAB	5	1	8	10	3	22
PRKME	5	1	7	12	2	22
PTOFS	4	3	8	4	2	17
RYSAS	12	1	5	7	2	15
SAHOL	8	1	5	5	1	12
SANKO	11	1	4	3	0	8
SARKY	5	2	5	2	0	9
SASA	4	1	6	6	2	15
SELEC	4	3	7	5	2	17
SERVE	9	2	8	7	1	18
SISE	3	1	8	5	2	16
SKPLC	1	2	2	2	0	6

EQUITY	SECTOR	CWTS1	CWTS2	CWTS3	CWTS4	CWTS
SKTAS	6	1	2	2	0	5
SODA	4	1	8	4	2	15
TATKS	1	0	0	0	0	0
TAVHL	12	3	7	11	3	24
TBORG	1	1	8	3	1	13
TCELL	2	4	7	10	4	25
TEKTU	10	1	2	1	0	4
THYAO	12	3	7	8	2	20
TIRE	9	1	8	4	2	15
TKFEN	8	4	8	8	2	22
TOASO	5	3	8	8	2	21
TRCAS	4	4	8	11	3	26
TRKCM	3	1	8	6	2	17
TSPOR	10	0	8	2	0	10
TTKOM	2	4	8	11	5	28
TTRAK	5	4	7	11	3	25
TUDDF	5	1	8	1	1	11
TUKAS	1	1	8	3	1	13
TUPRS	4	4	8	10	3	25
ULKER	1	3	8	8	3	22
UNYEC	3	2	8	5	2	17
USAK	3	1	8	3	1	13
UYUM	11	1	7	6	2	16
VAKKO	6	2	6	0	1	9
VESBE	5	3	7	7	2	19
VESTL	5	3	7	7	2	19
VKING	9	4	8	7	4	23
YATAS	9	1	5	5	1	12
YAZIC	8	3	7	7	2	19
YUNSA	6	2	8	4	2	16
ZOREN	7	3	8	6	3	20

APPENDIX II: Firm level determinants of CWT Score

EQUITY	ENG	ROA	ROE	DR	EPS	MTBV	BETA	FFR	OCR	AUDIT
ACIBD	0	1,49	99,28	82,94	0,11	10,06	0,19	36,18	57,90	1,00
ADANA	0	28,84	91,85	13,50	0,63	2,99	0,51	57,73	57,21	1,00
ADBGR	0	20,51	65,32	13,50	0,45	1,82	0,60	57,73	57,21	1,00
ADEL	0	23,88	135,77	17,29	2,76	2,11	0,48	22,60	56,89	1,00
ADNAC	0	2,85	9,07	13,50	0,06	0,45	0,72	57,73	57,21	1,00
AEFES	1	9,01	75,67	49,63	1,12	3,81	0,25	43,68	30,94	1,00
AFMAS	0	5,34	144,13	77,79	0,26		0,70	10,99	61,90	1,00
AFYON	0	0,88	71,51	17,15	0,19	10,85	0,70	49,00	51,00	1,00
AKALT	0	-2,96	-	40,81	-0,11	0,65	0,68	37,75	52,36	1,00
AKCNS	1	4,81	68,30	31,72	0,31	1,74	0,54	20,56	39,72	1,00
AKENR	1	-1,38	25,06	60,03	-0,07	1,78	1,01	25,28	37,36	1,00
AKFEN	1	1,93	28,24		0,49	2,29	0,62	28,26	68,19	1,00
AKSA	1	4,17	100,00	42,91	0,31	0,91	0,80	36,89	39,58	1,00
AKSEN	1	2,50	42,51	65,45	0,10	3,55	0,69	5,47	94,52	0,00
AKSUE	1	5,92	7,06	11,56	0,28	1,16	0,28	75,62	7,87	0,00
ALARK	1	2,42	70,57		0,18	1,02	0,65	26,68	36,37	0,00
ALCAR	1	3,41	99,09	16,25	0,81	0,84	1,01	15,94	42,03	0,00
ALCTL	1	0,22	128,25	74,06	0,01	2,32	0,50	35,00	65,00	1,00
ALKA	0	2,34	81,26	23,95	0,06	0,87	0,77	20,00	79,93	1,00
ALKIM	1	6,05	81,22	26,46	0,52	1,34	0,63	33,01	20,00	1,00
ALTIN	0	8,72	49,80	65,54	1,94	1,61	0,76	20,80	79,08	0,00
ALYAG	0	-5,79	266,62	75,03	-0,08	3,30	0,50	60,61	20,73	0,00
ANACM	0	5,86	67,13	48,48	0,29	1,45	0,84	20,88	79,11	1,00
ANELE	1	3,77	72,33	62,44	0,19	1,49	0,48	39,48	53,95	0,00
ANELT	1	-5,71	56,40	82,50	-0,36	1,93	0,22	45,75	27,41	0,00
ARCLK	1	7,06	100,90	53,46	0,77	1,58	0,89	25,19	40,51	1,00
ARENA	1	7,36	387,61	64,80	0,45	1,26	0,67	50,60	49,40	1,00
ARSAN	0	-12,42	56,34	48,38	-0,48	1,45	0,79	15,00	24,05	1,00
ASELS	0	9,06	46,29	68,23	1,02	2,30	0,62	15,30	84,58	0,00
ASUZU	1	-1,38	111,57	50,98	-0,18	1,31	1,01	15,00	35,71	1,00
ATEKS	0	-5,09	72,69	21,35	-0,49	0,53	0,44	19,00	30,00	0,00
AYEN	1	8,28	24,94	47,18	0,34	1,49	0,95	15,01	84,98	1,00
AYGAZ	1	8,54	172,23	28,17	0,80	1,26	0,58	24,12	40,68	1,00
BAGFS	1	18,77	119,22	25,71	15,66	2,67	0,64	57,57	40,44	0,00
BAKAB	0	7,50	105,94	38,11	0,25	0,91	0,94	48,58	48,67	0,00
BANVT	1	10,11	190,20	63,06	0,59	2,38	0,52	20,37	24,59	1,00
BFREN	0	2,15	190,80	89,98	0,61	74,60	0,79	15,50	84,50	0,00
BIMAS	1	17,90	531,93	63,53	1,62	15,93	0,68	65,33	16,77	1,00
BIZIM	1	10,14	587,06	70,62	0,71	-	0,74	40,00	33,00	1,00
BJKAS	1	-78,21	77,14	231,11	-3,00	-	0,47	37,50	62,50	0,00
BOLUC	0	6,42	65,84	10,92	0,10	1,21	0,55	48,06	51,94	1,00
BOSSA	1	0,99	76,57	34,13	0,04	0,80	0,90	6,24	93,76	1,00
BOYNR	1	5,36	186,81	76,38	0,19	5,02	1,02	39,90	30,05	1,00

EQUITY	ENG	ROA	ROE	DR	EPS	MTBV	BETA	FFR	OCR	AUDIT
BRISA	1	7,17	134,85	43,24	7,62	2,28	0,68	12,74	43,63	1,00
BROVA	1	-47,73	53,92	17,56	-0,33	3,74	0,83	65,02	14,33	0,00
BRSAN	1	-1,34	101,61	51,16	-0,47	1,05	0,79	17,38	73,48	1,00
BSHEV	0	14,33	161,94	46,15	5,08	7,23	0,67	0,72	99,28	1,00
BSOKE	1	2,33	32,23	10,22	0,06	0,70	0,71	25,00	74,62	1,00
BTCIM	1	2,87	63,07	19,00	0,21	1,41	0,55	13,98	23,33	1,00
BUCIM	0	2,94	111,46	25,74	0,10	2,21	0,40	29,29	20,73	0,00
BURCE	1	-5,76	82,31	44,99	-3,47	4,81	0,82	46,54	53,25	0,00
BURVA	1	0,62	103,82	48,88	0,01	3,23	0,34	49,78	50,22	0,00
CARFA	0	-1,18	142,71	41,64	-0,18	2,20	0,49	2,20	58,20	1,00
CARFB	0	-1,18	142,71	41,64	-0,18	2,78	0,51	2,20	58,20	1,00
CCOLA	1	6,56	93,68	52,39	0,78	3,66	0,35	24,63	40,12	1,00
CELHA	1	2,09	129,60	58,41	0,10	1,80	0,43	37,56	62,44	1,00
CEMTS	0	-2,57	106,91	17,56	-0,04	0,82	0,73	31,83	57,86	0,00
CIMSA	1	9,14	60,72	22,40	0,77	1,54	0,60	30,27	49,43	1,00
CLEBI	1	7,41	101,04	64,23	1,10	5,10	0,60	22,57	54,73	1,00
CMBTN	1	-7,98	182,04	55,57	-2,47	3,05	0,95	23,72	76,22	0,00
CMENT	1	1,85	47,52	25,12	0,23	1,13	0,39	2,20	58,46	1,00
COMDO	1	4,30	128,38	44,07	0,22	1,64	0,85	6,43	93,57	1,00
DENCM	0	1,67	77,47	58,97	0,17	5,04	1,04	40,00	26,00	1,00
DENTA	1	7,39	90,70	65,61	0,23	1,78	0,56	20,00	79,30	1,00
DERIM	1	2,24	168,65	76,09	0,23	1,86	0,82	31,00	49,08	1,00
DESA	0	0,48	113,56	50,47	0,01	1,10	0,46	30,00	54,28	0,00
DEVA	1	-0,26	67,00	45,44	-0,01	1,71	0,45	17,34	82,20	1,00
DGZTE	0	-5,28	110,13	33,52	-0,16	1,60	0,59	28,72	70,76	1,00
DITAS	1	-7,15	110,02	44,10	-0,25	1,65	0,46	48,85	50,93	1,00
DMSAS	0	3,09	108,82	37,99	0,13	0,88	0,80	16,67	44,44	0,00
DOAS	0	9,96	252,23	50,82	0,68	1,98	0,86	34,50	35,21	1,00
DOBUR	0	7,64	157,84	31,86	0,22	1,65	0,32	19,28	40,72	1,00
DOCO	1	5,62	187,61	40,20	3,18	2,21	0,43	47,05	40,95	0,00
DOHOL	1	8,17	32,43		0,27	0,71	0,89	33,88	52,00	1,00
DURDO	0	1,33	155,50	72,97	0,03	4,10	0,67	42,10	23,68	0,00
DYHOL	1	-6,08	64,77		-0,24	2,48	1,01	22,10	74,53	1,00
DYOBY	0	0,27	83,95	82,94	0,01	2,51	0,98	25,45	74,16	1,00
ECILC	1	2,27	35,46	10,33	0,11	0,58	0,88	29,33	50,62	1,00
ECYAP	1	-0,93	104,97	83,01	-0,04	3,87	0,63	17,00	70,00	1,00
EGEEN	0	4,60	103,27	53,39	1,25	2,08	0,95	36,38	63,62	0,00
EGGUB	0	7,15	70,59	56,41	8,33	2,44	0,67	41,71	38,29	0,00
EGSER	0	9,16	81,86	28,32	0,24	1,18	1,17	29,26	60,92	0,00
EMKEL	1	-2,17	66,59	66,40	-0,05	1,38	0,87	77,73	22,27	0,00
EMNIS	1	-13,36	91,27	77,06	-0,71	4,90	0,61	14,00	47,00	1,00
ENKAI	1	7,44	65,39	37,96	0,37	1,96	0,91	12,79	48,80	1,00
ERBOS	0	6,43	125,72	28,41	1,36	0,86	0,61	43,02	5,57	0,00
EREGL	1	5,66	53,73	50,59	0,48	1,25	1,12	47,63	49,29	1,00
ERSU	0	1,74	132,81	14,35	0,01	1,68	0,69	54,98	21,40	0,00

EQUITY	ENG	ROA	ROE	DR	EPS	MTBV	BETA	FFR	OCR	AUDIT
ESCOM	1	0,81	117,53	74,08	0,09	2,53	0,58	37,77	58,73	0,00
FENER	0	50,67	62,37	12,18	3,88	10,53	0,35	15,00	85,00	0,00
FENIS	0	3,05	89,31	51,75	0,11	1,69	0,86	25,07	74,92	0,00
FMIZP	0	23,01	118,61	6,30	0,42	9,49	0,94	13,24	86,76	1,00
FRIGO	0	-9,49	59,26	87,06	-0,23	4,26	0,30	32,46	36,09	1,00
FROTO	1	15,13	250,78	47,38	1,44	2,61	0,46	17,92	41,04	1,00
FVORI	0	-9,28	5,59	103,30	-0,24	-	0,66	50,79	32,45	0,00
GENTS	0	11,72	68,74	8,60	0,25	0,99	0,70	26,84	18,30	0,00
GEREL	1	-3,47	111,42	56,84	-0,18	0,64	0,22	65,81	29,10	0,00
GOLDS	1	0,76	368,17	68,41	0,04	0,56	0,81	60,30	39,70	0,00
GOLTS	1	1,08	47,62	32,89	0,65	1,96	0,85	67,45	27,56	0,00
GOODY	0	2,69	177,05	46,59	1,16	0,97	0,86	49,25	50,75	1,00
GSDHO	1	0,76	-		0,09	0,52	0,95	76,14	14,70	1,00
GSRAY	0	-113,19	56,01	252,74	-57,25	-	0,63	16,61	58,38	0,00
GUBRF	1	5,51	69,75	62,45	1,44	3,16	1,07	22,19	75,95	1,00
HEKTS	0	11,43	71,32	25,65	0,19	1,27	0,71	46,20	53,80	1,00
HURGZ	1	-2,54	46,27	51,04	-0,07	1,47	0,84	22,35	66,56	1,00
HZNDR	0	-1,54	158,56	64,51	-0,05	3,04	0,42	18,00	18,87	0,00
IDAS	0	-13,07	31,41	68,13	-0,77	0,84	0,73	78,99	21,01	0,00
IHEVA	1	3,19	35,24	20,01	0,05	1,25	0,83	77,97	17,60	0,00
IHGZT	1	2,51	28,87	15,22	0,08	1,55	1,13	33,00	56,55	0,00
IHLAS	1	2,52	53,10		0,09	1,36	0,37	83,78	11,07	0,00
IHYAY	1	0,39	32,91		0,01	2,13	1,01	28,75	69,15	0,00
INDES	1	2,45	251,96	77,62	0,24	1,36	0,78	23,44	38,63	0,00
INTEM	1	-2,66	316,37	86,54	-0,69	2,17	1,14	27,46	41,93	1,00
IPMAT	0	5,20	67,71	21,71	0,40	1,65	0,62	37,75	61,48	0,00
ITTFH	1	3,30	109,67		0,80	0,60	0,88	91,40	5,82	0,00
IZMDC	1	2,76	164,38	37,90	0,12	1,32	0,11	22,89	61,52	0,00
IZOCM	1	17,06	139,94	19,87	1,29	5,64	0,83	4,93	95,07	1,00
KAPLM	0	0,89	140,36	43,03	0,10	2,26	0,90	16,67	45,44	0,00
KAREL	0	7,49	67,72	56,25	0,52	1,05	0,38	30,96	23,01	1,00
KARSN	1	-8,47	152,69	73,32	-0,18	2,93	0,73	33,47	63,46	1,00
KARTN	1	9,14	96,61	11,70	6,19	3,55	0,81	25,21	34,38	0,00
KCHOL	1	2,14	66,19		0,72	1,44	1,28	22,12	42,39	1,00
KENT	1	-4,69	82,24	42,91	-0,93	14,85	0,51	0,54	84,04	1,00
KERVY	0	1,45	121,60	103,56	0,68	-	0,77	24,58	53,82	1,00
KILER	0	1,64	138,76	74,58	0,07	-	0,79	15,00	48,40	0,00
KIPA	0	-0,74	102,01	74,09	-0,11	2,10	0,44	7,08	92,92	1,00
KLBMÖ	1	6,68	94,62	50,15	0,05	3,22	0,58	16,64	73,89	0,00
KLMSN	0	5,62	132,17	72,56	0,27	2,50	0,86	31,00	44,00	1,00
KNFRT	0	6,07	89,19	53,82	0,47	1,95	1,12	31,09	68,91	0,00
KONYA	0	8,71	54,45	9,80	7,37	3,33	0,65	32,21	81,88	1,00
KORDS	1	2,96	98,78	31,87	0,20	0,89	0,70	8,89	91,11	1,00
KOZAA	1	9,74	69,16	18,13	0,49	1,56	0,92	22,29	52,25	0,00
KOZAL	1	43,16	107,14	19,63	1,54	7,16	0,62	30,00	48,57	1,00

EQUITY	ENG	ROA	ROE	DR	EPS	MTBV	BETA	FFR	OCR	AUDIT
KRDMA	1	1,50	76,92	42,26	0,02	1,33	0,70	68,44	21,08	0,00
KRDMB	1	1,50	76,92	42,26	0,02	1,44	0,95	68,44	21,08	0,00
KRDMD	1	1,50	76,92	42,26	0,02	0,82	0,57	68,44	21,08	0,00
KRSTL	0	-2,86	39,03	6,77	-0,04	1,20	0,96	59,09	38,00	0,00
KRTEK	0	0,98	90,85	40,83	0,04	0,97	0,51	30,00	11,70	0,00
KUTPO	0	1,68	95,59	20,23	0,06	0,89	0,86	26,37	26,53	0,00
LATEK	1	6,99	228,47	28,87	0,16	2,30	0,82	49,00	41,67	0,00
LINK	0	-6,57	49,14	13,96	-0,07	5,36	0,88	30,44	37,43	0,00
LOGO	1	-1,13	54,05	15,86	-0,02	1,88	0,69	29,44	70,56	1,00
LUKSK	0	0,35	36,35	30,17	0,02	0,98	0,79	18,62	74,74	0,00
MAALT	0	4,77	29,47	10,81	0,42	2,06	0,94	29,71	36,81	1,00
MARTI	0	-1,93	21,47	40,15	-0,06	1,11	0,85	52,86	17,00	0,00
MERKO	0	-1,62	102,08	83,19	-0,03	4,15	0,86	30,80	24,90	0,00
MGROS	1	0,76	113,51	75,80	0,24	3,89	0,97	2,08	97,02	1,00
MIPAZ	0	-9,17	16,50	63,30	-0,18	3,11	-0,07	13,51	85,54	1,00
MNDRS	0	5,15	80,57	34,77	0,11	0,51	0,81	51,93	45,68	0,00
MRDIN	0	26,77	82,34	14,28	0,71	3,36	0,34	44,15	55,85	1,00
MRSHL	0	7,99	140,97	29,66	1,32	2,60	0,75	8,65	48,85	1,00
MUTLU	0	10,56	143,39	41,62	0,42	1,57	0,92	25,00	75,79	0,00
NETAS	1	5,67	65,50	27,15	3,54	1,48	0,84	31,87	53,13	1,00
NTHOL	1	8,04	25,82		0,17	1,56	0,30	60,15	26,55	0,00
NTTUR	0	16,62	11,75	9,79	0,32	0,77	0,79	60,05	33,97	0,00
NUHCM	0	4,95	73,73	24,43	0,35	2,18	0,61	11,95	43,26	1,00
OLMKS	1	14,70	112,16	25,00	1,24	1,07	0,62	12,54	43,73	1,00
OTKAR	1	3,27	88,17	72,70	0,87	2,96	0,80	26,65	44,68	1,00
PARSN	0	0,71	37,23	17,53	0,03	0,73	0,66	29,60	66,70	1,00
PENGD	1	3,72	65,54	31,98	0,09	1,18	0,83	29,30	39,77	1,00
PETKM	1	5,48	129,62	32,64	0,13	1,49	0,79	38,68	51,00	1,00
PETUN	1	11,17	101,35	20,51	0,91	1,05	0,49	33,00	54,00	1,00
PIMAS	1	1,89	85,31	55,03	0,17	0,90	0,36	15,95	81,65	1,00
PINSU	1	3,95	73,04	24,11	0,30	0,85	0,81	31,78	58,00	1,00
PKART	1	0,81	126,44	15,53	0,01	2,22	0,70	48,56	18,74	1,00
PNSUT	1	11,28	114,10	27,75	1,34	1,72	0,36	37,95	61,19	1,00
PRKAB	1	-2,00	193,39	53,68	-0,05	1,19	0,66	15,48	83,75	1,00
PRKME	1	9,90	23,69	8,79	0,25	1,71	0,95	31,99	39,65	1,00
PTOFS	1	-0,63	239,55	66,85	-0,07	1,76	0,58	4,28	54,14	1,00
RYSAS	1	3,00	51,21	58,59	0,24	1,73	0,88	59,80	20,66	0,00
SAHOL	1	1,28	6,61		0,81	1,12	1,11	39,40	43,61	1,00
SANKO	0	3,70	210,83	42,37	0,24	1,33	0,63	25,00	61,00	0,00
SARKY	0	1,72	249,75	59,86	0,23	0,76	0,41	70,93	7,87	0,00
SASA	1	6,27	146,09	52,28	0,14	1,04	0,90	49,00	51,00	1,00
SELEC	1	4,41	143,36	73,34	0,30	1,44	0,69	20,01	77,32	0,00
SERVE	0	-26,76	68,04	65,26	-0,39	2,32	0,60	83,04	12,21	0,00
SISE	1	6,08	62,51	38,75	0,36	0,93	1,00	30,71	68,15	1,00
SKPLC	0	-5,77	187,23	90,67	-0,45	5,02	0,13	26,79	35,83	0,00

EQUITY	ENG	ROA	ROE	DR	EPS	MTBV	BETA	FFR	OCR	AUDIT
SKTAS	0	3,18	51,92	56,33	0,68	1,16	0,32	21,43	21,18	1,00
SODA	1	7,35	71,06	34,86	0,27	0,95	0,53	15,00	70,77	1,00
TATKS	0	2,91	143,77	58,08	0,12	3,17	0,82	41,20	43,70	1,00
TAVHL	1	2,37	36,03	73,50	0,27	3,03	0,64	40,13	26,12	1,00
TBORG	0	-2,62	92,91	50,63	-0,06	2,34	0,45	4,31	95,69	1,00
TCELL	1	11,74	61,93	36,42	0,81	2,41	0,69	34,69	51,00	1,00
TEKTU	0	0,78	10,15	6,15	0,01	1,00	1,08	47,05	23,40	0,00
THYAO	1	2,69	87,65	64,81	0,29	1,44	1,24	50,88	49,12	1,00
TIRE	1	-0,92	126,20	46,50	-0,01	2,35	0,78	36,21	63,39	1,00
TKFEN	1	5,82	77,46		0,48	1,44	0,76	37,87	19,30	1,00
TOASO	1	7,27	132,84	67,72	0,77	2,33	0,93	24,29	37,86	1,00
TRCAS	1	10,05	9,71	2,42	0,25	1,59	0,79	28,94	51,55	1,00
TRKCM	1	10,31	52,48	24,26	0,35	1,28	0,96	29,82	69,38	1,00
TSPOR	0	48,15	39,27	60,58	2,96	6,04	0,82	25,00	74,99	0,00
TTKOM	1	16,23	76,15	59,11	0,70	3,68	0,78	15,00	55,00	1,00
TTRAK	1	20,28	149,23	47,17	3,37	2,68	0,55	24,30	37,50	1,00
TUDDF	1	-5,33	86,14	87,12	-0,47	9,83	0,61	3,81	96,19	0,00
TUKAS	0	0,51	72,95	54,89	0,01	1,52	0,72	18,37	83,00	1,00
TUPRS	1	5,30	217,21	71,97	2,94	2,50	1,05	49,00	51,00	1,00
ULKER	1	6,41	54,26	47,08	0,69	1,01	0,36	50,00	39,84	1,00
UNYEC	0	15,55	64,91	14,74	0,37	2,15	0,48	8,64	51,33	1,00
USAK	0	0,73	65,74	66,80	0,07	0,68	0,62	50,89	49,10	0,00
UYUM	0	-0,59	179,73	47,96	-0,04	2,18	0,36	30,00	19,60	0,00
VAKKO	0	5,83	104,28	43,38	0,08	1,52	1,08	16,00	80,70	0,00
VESBE	0	2,61	150,35	47,16	0,13	1,27	0,62	27,40	72,60	0,00
VESTL	0	0,96	135,74	71,44	0,11	0,82	0,84	3,81	96,19	0,00
VKING	1	-12,26	87,12	83,41	-0,32	3,73	0,43	35,12	60,58	1,00
YATAS	0	0,39	80,23	72,78	0,04	0,91	0,76	40,15	8,78	0,00
YAZIC	1	3,33	16,85		1,39	1,20	0,28	27,45	39,05	1,00
YUNSA	0	3,63	115,40	65,08	0,18	1,30	0,39	30,63	57,88	1,00
ZOREN	1	-2,56	17,27	93,99	-0,24	5,07	0,72	32,00	45,30	0,00

APPENDIX III: Firm level determinants of CWT Score 2

EQUITY	STOCK PRICE	SCORE	EPS	MTBV	EPSSCORE
ACIBD	13,05	19	0,11	10,06	2,09
ADANA	5,44	17	0,63	2,99	10,71
ADBGR	3,48	17	0,63	2,99	10,71
ADNAC	0,84	17	0,63	2,99	10,71
ADEL	21,05	15	2,76	2,11	41,4
AEFES	22,40	21	1,12	3,81	23,52
AFMAS	15,65	15	0,26		3,9
AFYON	179,00	14	0,19	10,85	2,66
AKALT	1,55	13	-0,11	0,65	-1,43
AKCNS	7,34	21	0,31	1,74	6,51
AKENR	3,59	20	-0,07	1,78	-1,4
AKFEN	10,50	17	0,49	2,29	8,33
AKSA	3,70	17	0,31	0,91	5,27
AKSEN	4,72	18	0,1	3,55	1,8
AKSUE	5,24	11	0,28	1,16	3,08
ALARK	3,55	21	0,18	1,02	3,78
ALCAR	20,85	19	0,81	0,84	15,39
ALCTL	3,14	16	0,01	2,32	0,16
ALKA	1,53	11	0,06	0,87	0,66
ALKIM	7,64	15	0,52	1,34	7,8
ALTIN	13,45	11	1,94	1,61	21,34
ALYAG	1,16	16	-0,08	3,3	-1,28
ANACM	3,49	13	0,29	1,45	3,77
ANELE	2,32	16	0,19	1,49	3,04
ANELT	1,36	16	-0,36	1,93	-5,76
ARCLK	7,30	21	0,77	1,58	16,17
ARENA	2,63	11	0,45	1,26	4,95
ARSAN	1,93	6	-0,48	1,45	-2,88
ASELS	8,52	17	1,02	2,3	17,34
ASUZU	8,74	15	-0,18	1,31	-2,7
ATEKS	3,82	14	-0,49	0,53	-6,86
AYEN	3,24	13	0,34	1,49	4,42
AYGAZ	9,94	21	0,8	1,26	16,8
BAGFS	181,50	4	15,66	2,67	62,64
BAKAB	1,95	13	0,25	0,91	3,25
BANVT	4,84	6	0,59	2,38	3,54
BFREN	200,00	0	0,61	74,6	0
BIMAS	53,75	15	1,62	15,93	24,3

EQUITY	STOCK PRICE	SCORE	EPS	MTBV	EPSSCORE
BIZIM	31,10	20	0,71		14,2
BJKAS	10,10	19	-3		-57
BOLUC	1,69	17	0,1	1,21	1,7
BOSSA	2,37	17	0,04	0,8	0,68
BOYNR	3,94	16	0,19	5,02	3,04
BRISA	180,00	14	7,62	2,28	106,68
BROVA	2,03	13	-0,33	3,74	-4,29
BRSAN	17,25	16	-0,47	1,05	-7,52
BSHEV	134,50	14	5,08	7,23	71,12
BSOKE	1,68	10	0,06	0,7	0,6
BTCIM	7,70	10	0,21	1,41	2,1
BUCIM	4,75	12	0,1	2,21	1,2
BURCE	190,00	14	-3,47	4,81	-48,58
BURVA	3,69	14	0,01	3,23	0,14
CARFA	19,60	15	-0,18	2,2	-2,7
CARFB	24,75	15	-0,18	2,2	-2,7
CCOLA	20,00	25	0,78	3,66	19,5
CELHA	4,38	10	0,1	1,8	1
CEMTS	1,05	14	-0,04	0,82	-0,56
CIMSA	10,30	18	0,77	1,54	13,86
CLEBI	25,40	19	1,1	5,1	20,9
CMBTN	55,25	3	-2,47	3,05	-7,41
CMENT	9,54	3	0,23	1,13	0,69
COMDO	8,04	10	0,22	1,64	2,2
DENCM	12,65	13	0,17	5,04	2,21
DENTA	1,88	16	0,23	1,78	3,68
DERIM	4,31	3	0,23	1,86	0,69
DESA	1,22	13	0,01	1,1	0,13
DEVA	3,02	14	-0,01	1,71	-0,14
DGZTE	4,24	16	-0,16	1,6	-2,56
DITAS	3,32	14	-0,25	1,65	-3,5
DMSAS	2,20	14	0,13	0,88	1,82
DOAS	6,02	22	0,68	1,98	14,96
DOBUR	3,39	15	0,22	1,65	3,3
DOCO	64,25	11	3,18	2,21	34,98
DOHOL	1,22	22	0,27	0,71	5,94
DURDO	3,59	14	0,03	4,1	0,42
DYHOL	2,03	22	-0,24	2,48	-5,28
DYOBY	1,59	22	0,01	2,51	0,22

EQUITY	STOCK PRICE	SCORE	EPS	MTBV	EPSSCORE
ECILC	2,36	19	0,11	0,58	0
ECYAP	3,06	18	-0,04	3,87	-0,72
EGEEN	31,10	13	1,25	2,08	16,25
EGGUB	124,50	11	8,33	2,44	91,63
EGSER	2,99	9	0,24	1,18	2,16
EMKEL	1,43	14	-0,05	1,38	-0,7
EMNIS	5,68	5	-0,71	4,9	-3,55
ENKAI	6,14	16	0,37	1,96	5,92
ERBOS	20,10	11	1,36	0,86	14,96
EREGL	4,19	21	0,48	1,25	10,08
ERSU	1,29	13	0,01	1,68	0,13
ESCOM	7,86	10	0,09	2,53	0,9
FENER	90,25	8	3,88	10,53	31,04
FENIS	2,81	12	0,11	1,69	1,32
FMIZP	15,50	1	0,42	9,49	0,42
FRIGO	1,26	2	-0,23	4,26	-0,46
FROTO	13,75	16	1,44	2,61	23,04
FVORI	0,84	9	-0,24		-2,16
GENTS	2,25	14	0,25	0,99	3,5
GEREL	1,35	16	-0,18	0,64	-2,88
GOLDS	1,02	17	0,04	0,56	0,68
GOLTS	91,00	11	0,65	1,96	7,15
GOODY	41,80	11	1,16	0,97	12,76
GSDHO	0,99	11	0,09	0,52	0,99
GSRAY	393,00	13	-57,25		-744,25
GUBRF	15,20	13	1,44	3,16	18,72
HEKTS	1,71	14	0,19	1,27	2,66
HURGZ	2,07	23	-0,07	1,47	-1,61
HZNDR	3,20	9	-0,05	3,04	-0,45
IDAS	1,26	16	-0,77	0,84	-12,32
IHEVA	1,41	22	0,05	1,25	1,1
IHGZT	3,50	20	0,08	1,55	1,6
IHLAS	2,14	23	0,09	1,36	2,07
IHYAY	1,75	16	0,01	2,13	0,16
INDES	2,79	19	0,24	1,36	4,56
INTEM	6,96	15	-0,69	2,17	-10,35
IPMAT	3,55	10	0,4	1,65	4
ITTFH	7,92	19	0,8	0,6	15,2
IZMDC	5,82	15	0,12	1,32	1,8

EQUITY	STOCK PRICE	SCORE	EPS	MTBV	EPSSCORE
IZOCM	53,00	16	1,29	5,64	20,64
KAPLM	24,55	9	0,1	2,26	0,9
KAREL	3,60	17	0,52	1,05	8,84
KARSN	2,27	20	-0,18	2,93	-3,6
KARTN	205,00	15	6,19	3,55	92,85
KCHOL	7,44	21	0,72	1,44	15,12
KENT	173,00	1	-0,93	14,85	-0,93
KERTV	87,25	14	0,68		9,52
KILER	7,28	8	0,07		0,56
KIPA	8,70	10	-0,11	2,1	-1,1
KLBMÖ	1,15	13	0,05	3,22	0,65
KLMSN	3,79	9	0,27	2,5	2,43
KNFRT	7,58	10	0,47	1,95	4,7
KONYA	278,00	18	7,37	3,33	132,66
KORDS	4,18	17	0,2	0,89	3,4
KOZAA	4,74	14	0,49	1,56	6,86
KOZAL	20,20	14	1,54	7,16	21,56
KRDMA	1,23	16	0,02	1,33	0,32
KRDMB	1,35	16	0,02	1,33	0,32
KRDMD	0,88	16	0,02	1,33	0,32
KRSTL	1,50	17	-0,04	1,2	-0,68
KRTEK	2,09	13	0,04	0,97	0,52
KUTPO	2,48	10	0,06	0,89	0,6
LATEK	2,69	15	0,16	2,3	2,4
LINK	4,43	13	-0,07	5,36	-0,91
LOGO	2,19	24	-0,02	1,88	-0,48
LUKSK	3,49	12	0,02	0,98	0,24
MAALT	20,10	13	0,42	2,06	5,46
MARTI	1,19	13	-0,06	1,11	-0,78
MERKO	1,38	5	-0,03	4,15	-0,15
MGROS	34,90	20	0,24	3,89	4,8
MIPAZ	2,35	12	-0,18	3,11	-2,16
MNDRS	0,92	6	0,11	0,51	0,66
MRDIN	7,98	18	0,71	3,36	12,78
MRSHL	34,00	10	1,32	2,6	13,2
MUTLU	5,36	13	0,42	1,57	5,46
NETAS	137,00	15	3,54	1,48	53,1
NTHOL	1,69	13	0,17	1,56	2,21
NTTUR	1,19	0	0,32	0,77	0

EQUITY	STOCK PRICE	SCORE	EPS	MTBV	EPSSCORE
NUHCM	13,05	16	0,35	2,18	5,6
OLMKS	8,66	13	1,24	1,07	16,12
OTKAR	26,60	21	0,87	2,96	18,27
PARSN	2,19	14	0,03	0,73	0,42
PENGd	1,85	8	0,09	1,18	0,72
PETKM	2,39	27	0,13	1,49	3,51
PETUN	6,88	22	0,91	1,05	20,02
PIMAS	3,89	16	0,17	0,9	2,72
PINSU	4,79	23	0,3	0,85	6,9
PKART	2,26	18	0,01	2,22	0,18
PNSUT	13,75	23	1,34	1,72	30,82
PRKAB	1,41	22	-0,05	1,19	-1,1
PRKME	4,08	22	0,25	1,71	5,5
PTOFS	6,90	17	-0,07	1,76	-1,19
RYSAS	1,92	15	0,24	1,73	3,6
SAHOL	7,46	12	0,81	1,12	9,72
SANKO	4,65	8	0,24	1,33	1,92
SARKY	4,27	9	0,23	0,76	2,07
SASA	1,85	15	0,14	1,04	2,1
SELEC	2,50	17	0,3	1,44	5,1
SERVE	1,19	18	-0,39	2,32	-7,02
SISE	3,52	16	0,36	0,93	5,76
SKPLC	3,76	6	-0,45	5,02	-2,7
SKTAS	12,40	5	0,68	1,16	3,4
SODA	2,55	15	0,27	0,95	4,05
TATKS	3,60	0	0,12	3,17	0
TAVHL	7,42	24	0,27	3,03	6,48
TBORG	3,21	13	-0,06	2,34	-0,78
TCELL	9,50	25	0,81	2,41	20,25
TEKTU	1,46	4	0,01	1	0,04
THYAO	4,36	20	0,29	1,44	5,8
TIRE	1,61	15	-0,01	2,35	-0,15
TKFEN	6,32	22	0,48	1,44	10,56
TOASO	8,76	21	0,77	2,33	16,17
TRCAS	4,11	26	0,25	1,59	6,5
TRKCM	3,63	17	0,35	1,28	5,95
TSPOR	23,75	10	2,96	6,04	29,6
TTKOM	7,94	28	0,7	3,68	19,6
TTRAK	30,00	25	3,37	2,68	84,25

EQUITY	STOCK PRICE	SCORE	EPS	MTBV	EPSSCORE
TUDDF	12,35	11	-0,47	9,83	-5,17
TUKAS	1,19	13	0,01	1,52	0,13
TUPRS	46,10	25	2,94	2,5	73,5
ULKER	5,64	22	0,69	1,01	15,18
UNYEC	4,60	17	0,37	2,15	6,29
USAK	4,76	13	0,07	0,68	0,91
UYUM	8,80	16	-0,04	2,18	-0,64
VAKKO	1,51	9	0,08	1,52	0,72
VESBE	3,02	19	0,13	1,27	2,47
VESTL	2,70	19	0,11	0,82	2,09
VKING	1,41	23	-0,32	3,73	-7,36
YATAS	2,71	12	0,04	0,91	0,48
YAZIC	13,65	19	1,39	1,2	26,41
YUNSA	2,43	16	0,18	1,3	2,88
ZOREN	2,63	20	-0,24	5,07	-4,8