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INSTITUTE OF SOCIAL SCIENCES

The Extent of Voluntary Disclosure and its Relationship with Internal Corporate Governance Mechanisms: Evidence from Listed Banks in Borsa Istanbul (BIST BANKS)

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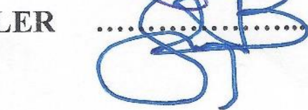

ISTANBUL, April 2019

DEDICATION

I dedicate this dissertation to my parents.

Also, I dedicate it to my wife, my daughter (Raseel), my sons (Islam and Seraj), my brothers, and my sisters.

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"بِسْمِ اللَّهِ الرَّحْمَـٰنِ الرَّحِيمِ"

"In the name of Allah, most Gracious, most Merciful"

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LIST OF ABBREVIATIONS

2SLS	A two-stage least squares regression
ACFEX	Audit Committee Financial Expertise
ACMEET	Audit Committee Meetings
ACSIZE	Audit Committee Size
AP	Accounting Policy
AVD	Actual Voluntary Disclosure score
ASEAN	Association of Southeast Asian Nations
BAGE	Bank Age
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BIST	Borsa Istanbul
BIST BANKS	Listed Banks in Borsa Istanbul
BLCOWN	Blockholder Ownership
BLEVE	Bank Leverage
BLUE	Best Linear Unbiased Estimator
BOIND	Board Independence
BOMEET	Board Meetings
BOSIZE	Board Size
BPROF	Bank Profitability
BSIZE	Bank Size
CEO	Chief Executive Officer
CMB	Capital Markets Board
CML	Capital Market Law
CRO	Chief Risk Officer
CSR	Corporate Social Responsibility
DMI	Directors and Management Information
DSE	Dhaka Stock Exchange
DW	Durbin–Watson Test
FGLS	Feasible Generalized Least Squares
FPI	Financial Performance Information
FSB	Financial Stability Board’s

GGP	Global Governance Principles
GLS	Generalized Least Squares
GSI	General and Strategic Information
ICGN	International Corporate Governance Network
IFC	International Finance Corporation
IFRS	International Financial Reporting Standards
IIA	Institute of Internal Auditors
INSOWN	Institutional Ownership
IOSCO	International Organization of Securities Commissions.
ISAs	International Auditing Standards
JB	Jarque-Bera Test
KAP	Public Disclosure Platform
MVD	Maximum applicable Voluntary Disclosure Score
NZSE	New Zealand Stock Exchange
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Squares
OTH	Others
PwC	PricewaterhouseCoopers International Limited
ROA	Return on Assets
ROCE	Return on Capital Employed
ROE	Return on Equity
ROLDU	Role Duality
SSE	Shanghai Stock Exchange
TBB	Banks Association of Turkey
TCC	Turkish Commercial Code
TCMA	Turkish Capital Markets Association
TVDI	Total Voluntary Disclosure Index Score
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
USM	Unlisted Securities Market
VIF	Variance Inflation Factor

ABSTRACT

Many theories and corporate governance guidelines state that good corporate governance systems will develop the disclosure. Voluntary disclosure is needed to indicate the performance of the company, to decrease the information asymmetry, to elucidate the difference of interests between the stockholders and the management, and to make corporate insiders accountable. This study seeks to achieve three main objectives. Firstly, the study aims to measure the level of voluntary disclosure in the annual reports of listed banks in Borsa Istanbul over the period from 2013 to 2017. Secondly, it pursues to investigate if the level of voluntary disclosure in the annual reports has been increased significantly during the study period. Lastly, this study examines the relationship between corporate governance mechanisms and the level of voluntary disclosure. This study adopts a self-constructed un-weighted disclosure index including 64 items to measure the extent of voluntary disclosure in 65 annual reports of 13 listed banks in Borsa Istanbul over a five-year period. The study applied content, descriptive, correlation and multiple FGLS regression analyses to analyze the research data. The results showed that the extent of voluntary disclosure in listed banks in Borsa Istanbul was high, with an overall average of 77%. Also, there was a significant increase in the level of voluntary disclosure over the five-year period. The multiple regression results indicate that board independence, board size, audit committee financial expertise, and audit committee meetings were significant in explaining the variation in the level of voluntary disclosure, whilst other independent variables were insignificant.

Keywords: *Voluntary Disclosure; Corporate Governance Mechanisms; Corporate Governance Principles; Bank Characteristics.*

ÖZET

Birçok teori ve kurumsal yönetişim ilkeleri, iyi kurumsal yönetişim sistemlerinin açıklamayı geliştireceğini belirtmektedir. Şirketin performansını göstermek, bilgi asimetrisini azaltmak, hissedarlar ve yönetim arasındaki menfaat farkını açıklamak ve şirket mensuplarını hesap verebilir kılmak için gönüllü açıklama yapılması gerekmektedir. Bu çalışmanın üç ana hedefi bulunmaktadır. İlk olarak, çalışma Borsa İstanbul'da kote edilen bankaların yıllık raporlarında 2013-2017 dönemine ait gönüllü açıklama düzeyini ölçmeyi amaçlamaktadır. İkinci olarak, çalışma döneminde yıllık raporlardaki gönüllü açıklama düzeyinin önemli ölçüde artırılıp artırılmadığını araştırmayı hedeflemektedir. Son olarak, bu çalışma kurumsal yönetişim mekanizmaları ile gönüllü açıklamanın düzeyi arasındaki ilişkiyi incelemektedir. Bu çalışma, beş yıllık bir süre içinde Borsa İstanbul'da listelenen 13 bankanın 65 yıllık raporunda gönüllü açıklamayı ölçmek için 64 maddeyi içeren, işletme tarafından oluşturulmuş, ağırlıklandırılmamış bir açıklama endeksini benimsemiştir. Çalışmada araştırma verilerini analiz etmek için içerik, tanımlayıcı, korelasyon ve çoklu FGLS regresyon analizleri uygulanmıştır. Sonuçlar, Borsa İstanbul'da listelenen bankalarda gönüllü açıklama oranının yüksek olduğunu ve genel olarak % 77 oranında olduğunu göstermiştir. Ayrıca, beş yıllık dönem boyunca gönüllü açıklama düzeyinde önemli bir artış olmuştur. Çoklu regresyon sonuçları, yönetim kurulu bağımsızlığı, yönetim kurulu üye sayısı, denetim komitesi finansal uzmanlığı ve denetim komitesi toplantı sayısı, gönüllü açıklama düzeyindeki değişimi açıklarken, diğer bağımsız değişkenlerin önemsiz olduğunu göstermektedir.

Anahtar Kelimeler: *Gönüllü Açıklama; Kurumsal Yönetişim Mekanizmaları; Kurumsal Yönetişim İlkeleri, Banka Özellikleri.*

CHAPTER 1: BACKGROUND AND OVERVIEW

1.1. Introduction

As a consequence of corporate scandals and financial crises, regulators, academicians, investors and other stakeholders claimed a higher degree of corporate transparency. The higher degree of transparency leads to reduce information asymmetry between management and stakeholders by disclosing better information through diverse media such as press releases, corporate websites, prospectuses, and annual reports (Uyar, Kilic, & Bayyurt, 2013). Consequently, corporations became conscious of the value of providing information about the broad range of their operations including both financial and non-financial performance, such as their performance of social responsibilities (Gal & Akisik, 2014).

Both financial and non-financial information are helpful for making decision. To make appropriate decisions, investors and other users seek to invest in the markets that have a higher degree of disclosure and transparency. Investors favor markets that require listed firms to present full information to assure the accessibility of information to all investors at the same time (Alotaibi, 2014).

Transparency and disclosure are considered as substantial factors influencing the corporation's attractiveness to investors, and the most important pillars of corporate governance. The level of transparency relies upon both the willingness and capability of managers to amend any informational contradictions with market participants (Madhani, 2007).

In recent years, disclosure and corporate governance are considered as two important correlative instruments for protecting the investor and the functioning of the capital markets (Allegrini & Greco, 2013). Many theories and corporate governance guidelines state that the good corporate governance systems support the internal control schemes of the companies and develop the information disclosure about the performance of the company (Htay, 2012), hence reducing opportunistic behaviors and lower information asymmetry. Accordingly, it has a positive impact on the high quality of disclosure; in the meantime, unfeigned and all-around information disclosure can enhance the continual improvement of the corporate governance (H. Li & Qi, 2008).

The banking sector is deemed to be one of the most important sectors in any economy. It plays an essential role in the growth of economies. Corporate governance in the banking sector seems to be more important than the other sectors because of its role as a crucial financial intermediary (Rogers, 2008). Some theoretical studies suggest that good corporate governance of banks needs a somewhat different framework from other types of industries (Mülbert & Paper, 2009). Banks' corporate governance arrangements, can impact economic development (Van Greuning & Brajovic, 2009). Effective corporate governance practices are considered one of the main stipulations to attain and maintain public trust and, in a broader sense, confidence in the banking system (Van Greuning & Brajovic, 2009).

Lack of corporate governance in banks can lead the market to lose the trust in their ability to manage their assets and liabilities, including deposits that could lead to a liquidity crisis and may drive to the economic crisis in a country and make a systemic risk to the society at large (Htay, 2012). Weak corporate governance increases the probability of bank failures. Bank failures may impose the significant public cost, impact

on deposit insurance programs, and rise contagion risks (Van Greuning & Brajovic, 2009).

Likewise, the value of the disclosure of information in the annual reports has been spotlighted as one of the necessary facets of sound corporate governance (Htay, 2012). Basel Committee on Banking Supervision (BCBS) states that information disclosure is significant because it is the core of corporate governance. Moreover, it declares that voluntary information disclosure is required to indicate the performance of the corporation, to decrease the information asymmetry, to define the conflict of interests between the shareholders and managers and to make corporate insiders accountable (BCBS, 2015). More voluntary information in the annual reports will increase transparency, decrease opportunistic behaviors, and information asymmetry. Furthermore, management will not be able to hold the important information for their interest (Htay, 2012).

1.2. Research Questions

The main objective of this study is to empirically investigate the relationship between the internal corporate governance mechanisms and the extent of voluntary disclosures in the annual reports of listed banks in Borsa Istanbul with controlling for some bank characteristics. Therefore, the study aims to answer the following questions:

1. What is the extent of voluntary information disclosure in the annual reports of Listed Banks in Borsa Istanbul during the period from 2013 to 2017?

2. Is there any significant improvement in the voluntary disclosure level in the annual reports of Listed Banks in Borsa Istanbul during the period from 2013 to 2017?
3. What is the extent of the relationship, if any, between each of the internal corporate governance mechanisms and voluntary disclosure in Listed Banks in Borsa Istanbul?

1.3. Research Aims and Objectives

The main purpose of this study is to assess to what extent the Listed Banks in Borsa Istanbul presented voluntary disclosure in the annual reports. Moreover, it aims to examine the extent of the relationship between voluntary disclosure and the internal corporate governance mechanisms. The following are the objectives of the study:

1. To evaluate the level of voluntary disclosure in the annual reports of Listed Banks in Borsa Istanbul during the period from 2013 to 2017.
2. To investigate if there is any significant improvement in the voluntary disclosure level in the annual reports of Listed Banks in Borsa Istanbul during the study period.
3. To examine if there is any significant relationship between the internal corporate governance mechanisms (i.e., the board of directors characteristics, audit committee characteristics, and ownership structure), and the voluntary disclosure level in the annual reports during the period.

1.4. Importance and Contributions of the Research

The main importance of this study rests in its capability to assist in filling a gap in the disclosure literature. To the best of my knowledge, no published empirical study attempts to test the significance of the relationship between corporate governance mechanisms and the extent of voluntary information disclosure of listed banks in Borsa Istanbul. Besides, no previous study tried to assess the level of voluntary disclosure in listed banks in Borsa Istanbul during a number of years to know if the level of voluntary disclosure has increased during such years.

Most of the prior studies on voluntary disclosure practices have been undertaken in the developed countries and a few of them have focused on voluntary disclosure practices in the banking industry. This study will add value to the knowledge in the disclosure literature by assessing overall voluntary disclosure and its categories in the annual reports of listed banks in Borsa Istanbul.

1.5. Overview of the Research Methodology and Methods

This study adopted the deductive approach and quantitative research design. Since the source of data is the annual reports, the archival and documentary research strategy was adopted in this study. The population of the study is the listed banks in Borsa Istanbul. These banks are selected because they are expected to disclose more information (voluntary disclosure), and they are more compliance with corporate governance than unlisted. According to Borsa Istanbul website, there are 13 banks. Since this population is small, all these banks are selected as the population of this study.

The data was gathered from the annual reports and websites of these banks. Since this data is secondary data, a quantitative method is adopted that is considered suitable for application to the research questions.

The data was collected across a five-year period. Therefore, a longitudinal research approach is employed. The chief research methods that are applied in this study are summarized below:

1.5.1. Data Collection Methods

The main objective of this study is to evaluate the extent of voluntary disclosure in the annual reports of listed banks in Borsa Istanbul and examine its association with corporate governance. The study limits the annual reports of listed banks in Borsa Istanbul from 2013 to 2017. The population covers the annual reports of banks, whose annual reports are available for the period. The copies of these annual reports are downloaded from banks websites.

1.5.2. Statistical Analysis Techniques

The univariate statistical analysis, such as mean, standard deviation, maximum, minimum, and correlation analysis is conducted to analyze and interpret the quantitative data. In addition, the multivariate Feasible Generalized Least Squares (FGLS) regression model is used to investigate the relationship between the voluntary disclosure level and the internal corporate governance mechanisms.

1.6. Organization of the Study

This study is divided into six chapters that are outlined below:

Chapter 1: This chapter includes the introduction, the research questions, the objectives and the importance of the study. It also provides a summary of the research methodology and statistical techniques, as well as the organization of the study.

Chapter 2: This chapter contains a description of voluntary disclosure, including its definition, theories, motivations, and empirical studies on voluntary disclosure and its determinants.

Chapter 3: This chapter aims to discuss the concept of corporate governance, including its definition, its importance, the international efforts to improve it, its mechanisms, and corporate governance practices in Turkish banks.

Chapter 4: This chapter presents the hypotheses development and describes the research methodology including the employed methods and data analysis techniques.

Chapter 5: This chapter aims to answer the research questions and testing the research hypotheses. It also discusses the research results and findings.

Chapter 6: This chapter discusses a summary of the current study and draws conclusions.

CHAPTER 2: LITERATURE REVIEW ON VOLUNTARY DISCLOSURE

This chapter reviews the literature about disclosure. It contains an overview of the corporate disclosure and its categories. This chapter also describes the concept of voluntary disclosure, including definition, theories, and motivations for voluntary disclosure. This chapter is structured as follows: section 2.1 an overview of corporate disclosure, 2.2 Categories of disclosure, 2.3 Theories explaining voluntary disclosure practices, 2.4 Motivations for voluntary disclosure and 2.5 Empirical studies on voluntary disclosure and its determinants.

2.1. An Overview of Corporate Disclosure

Corporate disclosure has a vast role in today's business and financial life. It also has a prominent role in the capital market mechanism because it is deemed as the tool that sets the functioning of financial markets which relies on a balanced situation of information distribution. Furthermore, companies make efforts to reduce information asymmetries by corporate disclosure. (Kissing, 2016).

In the disclosure literature, the corporate disclosure refers to the information that is provided to the public by financial reports of the company (Ağca & Önder, 2007). Also, Owusu-Ansah (1998, p. 608) defines corporate disclosure as *"the communication of economic information, whether financial or non-financial, quantitative or otherwise concerning a company's financial position and performance."* In other words, corporate disclosure aims to present information on the company's activities, and the financial and non-financial business situations of a firm to its audience.

Disclosure is the final step of accounting process; the accounting department collects and processes the financial events and summarizes them into useful information in which it represents the financial situation and performance of financial activities and then publishes them to the audience via financial reports.

In the accounting literature, there are three concepts of the disclosure, including adequate disclosure, fair disclosure, and full disclosure (Chamangard, Abadi, & Janani, 2013).

- Adequate disclosure is the most commonly used term. It is providing the minimum requirements of disclosing information that should not be misleading to users.
- Fair disclosure indicates that all types of users of accounting information must be dealt equally, and this is deemed as an ethical goal.
- Full disclosure indicates presenting all related information about the company.

2.1.1. Financial Reports

Financial reports are considered as the most significant source of financial and non-financial information about the firm including financial statements and other information. Fiscal reports involve primary financial statements, additional disclosures, and narrative. The statements (the income statement, the balance sheet, the statement of cash flows, and the statement of owner's equity) are the major outputs of the accounting system but not the only output. Management's explanations and other information, including underlying assumptions and significant uncertainties about methods and

estimates used in the financial reports, constitute important components of financial reporting by an entity. Because of a possible conflict of interest between management (who must prepare the financial statements) and other stakeholders such as investors and creditors (who invest in and lend money to the company), an outside accountant called External Auditor audits the financial statements to ensure their reliability.

2.1.1.1. Users of Financial Reports

Financial reports should be presented to those who make use of accounting information, with various purposes and knowledge levels, having so many interests and different information requirements (Chamangard et al., 2013). They are intended to provide a transparent view of companies. These reports help users to value and analyze companies based on their performance. Efficient economic systems and securities markets depend on the reliability and usability of these reports. Good decision-making, without them, would be nearly impossible (Seyam, Hinners, Freire, & Parbat, 2016). The level of information that must be disclosed depends upon the skills or needs of users and the standards (Chamangard et al., 2013).

According to Needles & Powers (2011) users of financial reports (decision makers) fall into three groups: Those who run the company (the management), those external to the company who have a direct pecuniary interest in the company and those who have an indirect economic interest in the company.

1. The Management

Successful management consistently makes better decisions based on the timely and valid information. Because many important decisions are based on financial

information, management is considered to be one of the most important users of financial reports. In its decision-making process, managers perform functions that are necessary to the operation of a company. The same primary functions must be performed in all companies, and each requires financial information on which to base decisions.

2. **Users with a Direct Financial Interest**

This category of decision makers depends on financial reports to assess the performance of the company. Financial reports show what happened in the bygone, and they are chief indicators of what may happen in the future. Many individuals external to the business study carefully these financial reports. The two key categories are investors (including owners) and creditors.

Investors: A careful study of a firm's financial reports assists potential investors to evaluate the forecasts for a profitable investment. After investing their funds, their investment ought to be constantly evaluated by analyzing the firm's financial reports.

Creditors: Before creditors make a loan, banks, finance firms, insurance firms, mortgage firms, securities firms, suppliers, and other lenders must study a firm's liquidity, cash flow, and profitability as well as they analyze a company's financial position.

3. **Users with an Indirect Financial Interest**

Recently, the community as an entire, through governmental and public collections, has become one of the biggest and most major users of financial reports. Users who want financial information to make decisions on public matters including, regulatory agencies, tax authorities, and various other groups.

Regulatory Agencies: Firms must periodically notify one or more regulatory agencies at the national and international levels. For example, all listed companies in the financial markets must report periodically to meet the specific reporting obligations of their exchange.

Tax Authorities: Tax authorities use financial reports to compute income taxes for companies. The proper reporting is a matter of law.

Other Groups: Labor unions use the financial reports to prepare the contract negotiations; a firm's revenue and expenses usually play a vital role in these negotiations. Those who make advice to investors and creditors (such as financial analysts, economists, brokers, lawyers, and the financial press) have an indirect attention in the financial performance of a company. Consumers, customers, and the overall public became more interested in the financing and profits of companies as well as the impacts that companies have on inflation, social issues, and the quality of life. Moreover, economic planners use the financial information to regulate and assess programs and economic policies.

2.1.1.2. The objective of Financial Reports

There are two main purposes of financial reports. These are that the financial statements should (a) provide the wherewithal for investors to evaluate the management's stewardship of the firm's resources and (b) provide data that helps investors to make useful decisions (Elliott & Elliott, 2017).

Financial reports should help the decision makers to do the following (Needles & Powers, 2011):

1. **Evaluate cash flow prospects**. Since the ultimate value of an entity and its ability to pay dividends, interest, and otherwise provide returns to capital providers depends on its ability to generate future cash flows, capital providers and other users need information to help make judgments about the entity's ability to generate cash flows.
2. **Evaluate management**. Capital providers and others need information about the entity's resources (assets), claims against them (liabilities and owner's [stockholders'] equity), and changes in these resources and claims as impacted by transactions (earnings and cash flows) and other economic events to evaluate managers.

2.1.1.3. Financial Statements

Financial statements are considered as the main tool of communicating financial information about a company to those who have attention of the company. In the accounting literature and practice, there are four basic financial statements that used to communicate financial information about a company: the income statement, the balance sheet, the statement of cash flows, and the statement of owner's equity. These primary financial statements should be prepared using standardized formats as prescribed by International Financial Reporting Standards (IFRS).

i. **The Income Statement:** The income statement shows the net result of a company's earned revenues, minus incurred expenses, over a given period. It shows the profits or losses that the company has made during the period. Many people believe that it is the most significant financial report because it shows whether a company achieved its profitability goals and earned an acceptable income (Needles & Powers, 2011).

ii. **The Balance Sheet:** The balance sheet aims to display the financial position of a company on a specific date, usually the end of the month or year. It is also called The Statement of Financial Position and is dated as of a certain date. The balance sheet shows a view of the company as the holder of resources, or assets, that must be equal to the claims against those assets. The claims consist of the company's liabilities and the owner's equity in the company.

iii. **The Statement of Cash Flows:** While the income statement concentrates on a firm's profitability, the statement of cash flows concentrates on the liquidity of the company. Cash flows represent the inflows and outflows of cash into and out of the company. Net cash flows equal to the difference between the inflows and outflows.

iv. **The Statement of Owner's Equity:** The statement of owner's equity exhibits the changes in owner's equity over an accounting period.

2.2. Categories of Corporate Disclosure

In the relevant literature, corporate disclosure falls into two broad categories: mandatory disclosure and voluntary disclosure.

2.2.1. Mandatory Disclosure

In the mandatory disclosure, regulations and standards define the necessary information that firms have to disclose, in which form, to whom and when they ought to be disclosed (Ağca & Önder, 2007). In other words, mandatory disclosure primarily focuses on presenting the essential financial statements (e.g., an income statement, a

statement of other comprehensive income, a statement of changes in equity, a statement of financial position, and a statement of cash flows) and their complementary footnotes that required by regulations and laws.

Sometimes mandatory disclosure may not be beneficial adequately to satisfy the demands of some beneficiaries such as investors, creditors, customers and the society, and anyone who is concerned with the success of companies (Alhazaimeh, Palaniappan, & Almsafir, 2014).

2.2.2. Voluntary Disclosure

Voluntary disclosure indicates to supplementary information presented by companies with the obligatory information to decrease the information asymmetry between insiders and outsiders users (Hasan & Hosain, 2015). It is represented as free options on the portion of the firm administration to present financial and non-financial information that related to the decision requirements of the annual reports users (Meek, Roberts, & Gray, 1995).

Voluntary disclosure can, therefore, be defined as *"the information released to the outside, deriving from the management's insider knowledge of the company, which are not required to be published in regulated reports"* (Allegrini & Greco, 2013). Companies that disclose more information have a chance to get some interests like less capital costs, increase investor confidence, and progress the marketability of their shares (Meek et al., 1995).

Likewise, voluntary disclosure can contain information advised by an authoritative code or body like the operating and financial review in the UK (O. Hassan

& Marston, 2010). The voluntary disclosure level is varied from one firm to another because of some factors that may affect this difference (Abeywardana & Panditharathna, 2016).

2.3. Theories Explaining Voluntary Disclosures Practices

Firms provide voluntary information beyond the mandated by regulation because of many reasons. In the relevant literature, some theories have tried to explicate voluntary disclosure practices, including agency theory, signaling theory, capital need theory, legitimacy theory and stakeholder theory (Shehata, 2014; Uyar et al., 2013).

2.3.1. Agency Theory

An agency relationship is defined as *"a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent"* (Jensen & Meckling, 1976). The agency problem arises when the agent does not need to make decisions in the best benefits of the principal (Solomon & Solomon, 2004), which lead to arising agency costs.

Jensen & Meckling (1976) define agency costs as the total of the monitoring cost, bonding cost, and the residual loss. The monitoring expenses that are spent by the principal to diminish the agents' aberrant activities. The bonding expenses are paid by the agent to ensure that no damage to the principal's interests will result from their decisions and actions. Whereas the residual loss that arises when decisions of the agent's conflict from decisions that would maximize the principal's welfare. There are various forms of agency costs such as executive rewards, drops in productivity, free cash flow

inefficiencies, loss of firm value, among others. The theory predicts that agency costs differ from one firm to another because of the differences in the firms' characteristics such as size, leverage and listing status (Watson, Shrives, & Marston, 2002).

The agency theory assumes that the interests of the principal and agent are conflicted because principals often do not have better information about firm functions and activities as much as agents have (Kivisto, 2008), which leads to the information asymmetry problem (Jensen & Meckling, 1976).

Voluntary disclosure can mitigate the information asymmetry problem. Voluntary disclosure offers an excellent opportunity for managers who have better access to a firm's special information (Alotaibi, 2014). According to Barako, Hancock, & Izan (2006) disclosing more voluntary information reduces the agency costs. Managers also disclose more information voluntarily for persuading the external users that managers are running in a perfect way (Watson et al., 2002), as well as firms disclose more information to attempt reducing users' uncertainty, thus decreasing the cost of capital (Watson et al., 2002). Moreover, voluntary disclosures can provide financial markets credible and reliable communication for optimizing the companies' value (Alotaibi, 2014). The existence of the conflict between the interests of directors and shareholders explains the absence of full disclosure (Lev & Penman, 1990).

2.3.2. Signaling Theory

According to Spence (1973), signaling theory addresses the information asymmetry problem between two parties. Signaling theory provides firms a strategy for alleviating this information asymmetry between managers and external stakeholders (Freedman & Jaggi, 2010). Because of this information asymmetry problem, firms signal

certain information to stakeholders to demonstrate that they are better than the others in the market for the aim of attracting investments and improving a positive reputation (Shehata, 2014). The theory predicts that the information asymmetry problem can be decreased when the parties those who have more information signal to others (Spence, 1973).

According to this theory, the chief objective of the corporate disclosure is to inform internal and external users about the firm quality and value (Hamrouni, Rochelle, Miloudi, & Benkraiem, 2015). The firms will be more competent to attract investors trust if they are well known in financial reporting and disclose more information about their activities (Birjandi & Hakemi, 2015). The theory gives an understanding of how signals impact the firm value (Spence, 1973).

As it is known, the main goal of the corporate disclosure is to inform users about the quality and value of the firm. Signaling theory expounds why firms adopt voluntary disclosures (Spence, 1973). Companies utilize voluntary disclosure to decrease information asymmetry to satisfy external users. The theory assumes that voluntary disclosure guides to the conveying of relevant information about firm performance (Hamrouni et al., 2015). By using voluntary disclosures, good firms want to be distinguished from bad firms.

2.3.3. Capital Need Theory

In the capital markets, firms with a diverse range of growth opportunities look for external finance to support their activities to raise capital, either by debt or by equity (Von Alberti-Alhtaybat, Hutaibat, & Al-Htaybat, 2012). In this situation, mandatory disclosure is viewed not adequate to get capital as cheaply as possible (Core, 2001). Capital need

theory can clarify why management of firm uses disclosure of voluntary information. The capital need theory indicates that managers have a motive to publish extra information that can allow them to increase capital on the best possible terms and lower cost (Meek et al., 1995).

As a result of globalization and growing competition for capital, long-term investors are expected to concentrate on firms with high levels of disclosure to decreasing their risks and trading costs (Schuster & O'connell, 2006). Poshakwale & Courtis (2005) indicate that higher level of disclosure is linked to a decrease in cost of equity capital. Firms that disclose extra information have a higher demand for their securities, hence leading to a lower cost of capital. (Dye, 1985; Verrecchia, 1983). In the capital markets, Firms compete with each other on the types of offered shares and the terms and expected profits promised (Meek et al., 1995).

Al-Htaybat (2005) discusses that there are three purposes for adopting capital need theory in interpreting voluntary disclosure. The first purpose is that the willingness of firms to increase their capital at a cheaper cost. The second is the decrease of firms' agency costs due to the rise of information disclosed by the firms that makes firms increase their new capital in the best way. The third is the decrease of investor uncertainty due to the rise of the voluntary disclosure that decreases the rate of the investors' return.

2.3.4. Legitimacy Theory

According to this theory, there is an revealed or implied a social contract between existing firms and the society (Campbell, 2000). Legitimacy theory is defined as "*a generalized perception or assumption that the actions of an entity are desirable, proper,*

or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995).

Firms' survival and growth are based on their ability to fulfill desirable ends to the community and to distribute economic, social, or political benefits to the groups from which they derive their power (Shocker & Sethi, 1973). As it is acknowledged that, the main objective of the accounting is to provide users with information that can help them in decision-making as well as the satisfaction of social interests. This theory has been integrated into the accounting literature as wherewithal of interpreting, what, why, when, and how firms’ management address with specific items in their connection with outside users (Magness, 2006).

According to this theory, managers are obliged to disclose information that would alter the view of external users about their firms (Cormier & Gordon, 2001). The theory discusses that disclosure is used by management to shape stakeholders' opinions of the firm's role and responsibility, and the extent to which the firm is satisfying those responsibilities (Magness, 2006). Legitimacy theory is considered as another theoretical explanation for the voluntary disclosure (Suchman, 1995). Accordingly, the theory would indicate that voluntary disclosure could be applied to narrow the legitimacy ‘gap’ between how the firm wants to be viewed and how it is (Campbell, 2000). Therefore, voluntary disclosure is used by firms to provide more information about them to the community to legitimize their continued operation within such community.

Since the most important sources of legitimation are the annual reports (Dyball, 1998; O’Donovan, 2002), legitimization happens through both mandatory and voluntary disclosures. Mandatory disclosures are presented in the financial statements because of

regulations and standards. Whereas voluntary disclosures are presented in other parts of the annual reports of firms (Shehata, 2014).

2.3.5. Stakeholder Theory

In the relevant literature, there are several definitions of the concept of stakeholders. According to Phillips (2003, p. 25) *"Common to nearly all stakeholder definitions is the notion that a stakeholder is any individual or group of individuals that is the legitimate object of managerial or organizational attention."* Firms influence stakeholders and, in turn, they influence firms in some way. They hold a 'stake' in firms instead of simply a 'share.' Stakeholders consist of managers, stockholders, employees, suppliers, customers, creditors, societies in the nearness of the firm's operations and the general public (Solomon & Solomon, 2004).

The basic assumption of this theory is that firms are so big, and their influence on the community so pervasive that they should discharge accountability, not only to their shareholders, but also to many more sectors of the community (Solomon & Solomon, 2004). Stakeholder theory suggests that managers have to keep stakeholders obligated to support the operation of the firm (Elliott & Elliott, 2017).

According to the theory, the disclosure is a portion of the discussion between firms and their stakeholders, as well as it gives information about the operations of firms that legitimize their behavior, educate and inform, and change perceptions and expectations (R. Gray, Kouhy, & Lavers, 1995).

Stakeholder theory can be applied to justify why firms tend to publish information voluntarily (Uyar et al., 2013). The management of firms should contact the stakeholders

to gain their supports (Van der Laan Smith, Adhikari, & Tondkar, 2005). Therefore, the extra information that demanded by stakeholders motivates firms to disclose such information voluntarily (Uyar et al., 2013). Stakeholder theory predicts that the increases in levels of voluntary disclosure lead to greater accountability and transparency (Coy & Dixon, 2004).

2.4. Motivations for Voluntary Disclosure

Although there are several theories which support voluntary disclosure, academic researchers have tried to identify and explain the factors that may influence managers' disclosure decisions. Healy & Palepu (2001) identify six motives that impact director's disclosure decisions for capital market reasons, including capital markets transactions hypothesis, corporate control contest hypothesis, stock compensation hypothesis, litigation cost hypothesis, management talent signaling hypothesis, and proprietary cost hypothesis.

2.4.1. Capital Markets Transactions Hypothesis

The perceptions of investors are significant to the firm managers who want to make capital market transactions such as issuing equity or debt or acquiring another firm (Healy & Palepu, 1995). The information asymmetry problem occurs when managers have superior information to outside investors regarding the firm's prospects (Healy & Palepu, 2001). If firms cannot resolve this information asymmetry, the cost of public equity or debt will be higher for existing shareholders (Myers & Majluf, 1984).

This hypothesis suggests that the managers have motives to disclose more information voluntarily for reducing the information asymmetry problem, thereby

reducing the firm's cost of debts or public equity (Ali & Velashani, 2008). Barry & Brown (1985, 1986) and Merton (1987) find out a similar result by modeling the premium that investors demand to support information risk when the information asymmetry problem exists between managers and outside financial users. Firm management can decrease its cost of capital by decreasing information risk through voluntary disclosure.

Voluntary disclosure can help to reduce information asymmetry problem via increasing disclosed information to outside investors (Healy & Palepu, 2001). Lang & Lundholm (1993) point out that firms that disclose more information have larger analyst following, less dispersion in analyst predictions, and less volatility in prediction revisions. Also, firms with increased analyst ratings of disclosures are found to have an abnormally high frequency of subsequent public debt offers (Healy, Hutton, & Palepu, 1999).

2.4.2. Corporate Control Contest Hypothesis

The stock performance of the firm (price of shares) is one of the main tools that used by the boards of directors and investors to control the management. The first line to protect investors from incompetent management is the board of directors (Weisbach, 1988). By the power derived from the shareholders, the board of directors is responsible for hiring, fire, evaluate, and compensate the Chief Executive Officer (CEO) (Jensen, 1993).

This hypothesis is motivated by evidence that managers are held accountable for the current stock performance of the board of directors and investors (Healy & Palepu, 2001). There is evidence shows that there is a relationship between poor stock performance and CEO turnover (Warner, Watts, & Wruck, 1988; Weisbach, 1988). Poor stock price performance is linked to the likelihood of hostile takeovers, which leads to

high CEO turnover (Morck, Shleifer, & Vishny, 1990; Palepu, 1986). DeAngelo (1988) finds that poor earnings performance is considered by dissident shareholders, who wage a proxy fight for board representation, as justification for proposed management changes.

Because of the risk of job losses accompanying poor stock and earnings performance, the corporate control contest hypothesis predicts that management uses voluntary disclosures to decrease the probability of undervaluation and to clarify away poor earnings performance (Baginski, Clinton, & Mcguire, 2014). Trueman (1986) implies that managers can signal their capabilities by increasing voluntary forward-looking disclosure in an attempt to persuade shareholders that they are in control of operations and they can predict and react to future changes in the economic environment.

2.4.3. Stock Compensation Hypothesis

There are various stock-based compensation plans (e.g., stock option grants and stock appreciation rights) that are used to reward the management (Ali & Velashani, 2008). Stock compensation hypothesis suggests that these kinds of compensations present motives for managers to engage in voluntary disclosures (Healy & Palepu, 2001). Healy & Palepu (2001) point out that there are two reasons which justify this motivation.

The first, managers are interested in providing private information to meet the limitations imposed by insider trading regulations and to increase the liquidity of the firm's stock in order to trade their own stock holdings (Ali & Velashani, 2008). Also, limitations on insider trading provide management with motives to use voluntary disclosures for correcting any perceived undervaluation (relative to their own information set) before the expiration of stock option awards (Healy & Palepu, 2001).

The second, management may consider the interest of the existing stockholders and disclose more information voluntarily to reduce contracting costs associated with stock compensation for new employees (Ali & Velashani, 2008). If stock prices are a precise estimate of firm values, stock compensation is more likely to be an efficient form of reward for management and owners. Otherwise, management will demand extra compensation to remunerate them for bearing any risk linked to misvaluation (Healy & Palepu, 2001). Companies that use stock compensation extensively are likely to present extra disclosure to decrease the risk of misvaluation (Healy & Palepu, 2001).

There is proof which shows that there is a relationship between management's disclosure decisions and its stock-based compensation (Ali & Velashani, 2008). Aboody & Kasznik (2000) find out that CEOs of firms with scheduled awards use opportunistic voluntary disclosures to maximize their stock option compensation.

2.4.4. Litigation Cost Hypothesis

Li, Pukthuanthong, Glenn Walker, & Walker (2016, p. 92) defines Litigation Cost as "*the litigable investor losses that result from the decline in market capitalization a firm experiences after its IPO or the maximum claimable losses for which an IPO firm can be sued*." If managers make a false statement of a material fact or omitted such a fact, shareholders can file lawsuits against them (Wynn, 2008). Management will give due care to disclose more information, particularly bad news, to limit this threat of litigation, (Skinner, 1994).

Litigation can be deemed as a motivation to improve disclosure or a limitation of disclosure (Shehata, 2014). Managers' disclosure decisions can be affected by the threat of shareholder litigation in two ways (Ali & Velashani, 2008). First, managers may have

motives to increase voluntary disclosure because of the legal procedures against them for inadequate or untimely disclosures (Healy & Palepu, 2001). Second, as a result of litigation, managers may decrease voluntary disclosures of forward-looking information, especially when managers meet the risk of being penalized against their forecasts (Graham, Harvey, & Rajgopal, 2005; Healy & Palepu, 2001).

Managers may be penalized predictions made in sound faith because the legal system cannot effectively distinguish between unexpected prediction errors because of chance and those because of deliberate management bias (Healy & Palepu, 2001).

2.4.5. Management Talent Signaling Hypothesis

Trueman (1986) indicates that there is a motive for talent managers to make voluntary earning forecasts to disclose their type. The market value of the firm is a function of investors' judgments of its managers' ability to predict and respond to future changes in the firm's economic environment (Healy & Palepu, 2001).

Trueman's argument is based on the assumption that the managers' disclosure is not because of the nature of the revised anticipation of the firm's earnings in a period, but rather is the managers' desire to inform investors that they have received new information about the period's earnings. Healy & Palepu (2001) commented that there is no evidence to either support or refute this hypothesis.

2.4.6. Proprietary Cost Hypothesis

In the relevant literature, researchers suggest that companies' decisions to disclose information to investors are affected by concern that these disclosures can harm their

competitive position in product markets (Darrough & Stoughton, 1990; Feltham & Xie, 1992; Verrecchia, 1983; Wagenhofer, 1990). The main conclusion of these studies is that firms favor not to disclose information that will decrease their competitive position in the market, even if this would increase costs to raise additional equity.

Proprietary costs arise when a third party, whose interests are not aligned with the company's interests, uses the disclosed information against the firm. Proprietary costs hypothesis assumes that firms can reduce their disclosure to avoid their strategic exploitation by other competitors (Anthony & Godwin, 2015). Thus, when these costs appear, firms have to trade off the positive impacts of disclosure against the negative impacts (Oliveira, Rodrigues, & Craig, 2005).

The main difference between proprietary cost hypothesis and the previous five hypotheses on voluntary disclosure is that it assumes there are no conflicts of interest between managers and shareholders. The voluntary disclosure will always be credible, and therefore the costs and benefits of disclosure and the economic forces that constrain full disclosure are the focus of attention under this hypothesis (Healy & Palepu, 2001). However, revealing information to rivals does not always decrease the disclosing future earnings of the firm; in some cases, firms are better recommended to share information in order to coordinate activities to their mutual advantage (Darrough, 1993).

The outcomes of disclosure affected by other reasons, such as the nature of market competition (Darrough, 1993), the kind of private information, and the risk of entry of new companies into the market (Darrough & Stoughton, 1990; Feltham & Xie, 1992). However, there is little direct proof of this hypothesis (Healy & Palepu, 2001).

2.5. Literature Review of Empirical Studies on Voluntary Disclosure

This section aims to review the relevant literature about voluntary disclosure. It is divided into four sub-sections; in the first (2.5.1), I will review previous empirical studies on voluntary disclosure in the annual reports of non-banking firms. The second (2.5.2) will be about empirical studies on voluntary disclosure in the annual reports of banking firms. In the third section (2.5.3), I will discuss these empirical studies. This section contains three sub-subsections; the first (2.5.3.1) will be about the discussion the measurements of the extent of voluntary disclosure that applied in these studies. In the second (2.5.3.2) will discuss the categories of voluntary disclosure. Whereas the third will discuss the determinants of voluntary disclosure. The last section (2.5.4) will be about the gap in prior literature studies on voluntary disclosure.

2.5.1. Empirical Studies on Voluntary Disclosure of Non-Banking Firms

One of the earliest studies on voluntary disclosure was conducted in the UK by Firth (1979) that tried to investigate the relationship between the voluntary disclosure level and some firm characteristics: firm size, listing status, and quality of auditing. The sample represented by 40 unlisted manufacturing firms and 40 matched manufacturing listed firms on the UK Stock Exchange. The sample also contain 100 stock exchange listed manufacturing companies. The measurement of the level of voluntary disclosure was a weighted disclosure index containing 48 items. The findings showed that listing status and firm size are positively associated with the level of voluntary disclosure.

The study of McNally, Hock Eng, & Roy Hasseldine (1982) tried to test the association between the level of voluntary disclosure practices and a number of the company's characteristics: firm size, the rate of return, growth, size of auditing firm and industry groups. They studied 103 manufacturing firms listed on the New Zealand Stock Exchange. A weight disclosure index with 41 items was used. They sent a questionnaire to some financial editors and Stock Exchange members. The findings showed that just firm size has a significant positive relationship with the level of voluntary disclosure.

The main objective of the study of Chow & Wong-Boren (1987) was to examine the relationship between the three firm characteristics (firm size, leverage and proportion of assets in place) and the level of voluntary disclosure in annual reports of 52 listed Mexican manufacturing firms. The disclosure index contained 24 items. The study used weighted and un-weighted scoring methods. Using a multiple regression technique, the results indicated that there is a significant positive relationship between the level of voluntary disclosure and firm size. In contrast, there is no significant relationship between leverage and assets and the level of voluntary disclosure.

An empirical study was conducted by Lutfi (1989) to examine the voluntary disclosure practices in the United kingdom by 122 firms in the Unlisted Securities Market (USM). The hypotheses about the potential factors influencing on voluntary disclosure. He studied 11 factors. He adopted an un-weighted disclosure index with 53 voluntary items to measure voluntary disclosure. The index items were divided into 6 categories: plans and prospects, segmental information, research and development information, foreign operations, assets descriptions, and other information. The regression model was applied in this study. The findings showed that the probability of firms disclosing voluntarily improved with company's size, the foreign turnover, leverage, and the

existence of executive share option schemes. The study found that the probability of USM firms disclosing voluntary information decreased the ratio of directors' equity.

Cooke (1989) examined the relationship between the extent of voluntary disclosure and some firm characteristics of Swedish companies. The firm characteristics were: quotation status, annual sales, total assets, the number of shareholders, parent company relationship and industry type. Voluntary disclosure is divided into seven categories (Information in financial statements, Measurement and valuation methods, Ratios, statistics and segmental information, Projections and budgetary disclosure, Other social responsibility disclosures and Financial history). The study sample included 90 Swedish firms with 38 unlisted and 52 listed on the Swedish Stock Exchange. The study excluded banks and insurance firms from the sample. The study structured an index of the disclosure included 146 items for measuring the extent of the voluntary disclosure. The author used multiple regression analysis; The study found that the extent of voluntary disclosure significantly associated with quotation status, industry type, and three measures of company size. Otherwise, the parent firm association was found as not significant in explaining voluntary disclosure. Also, The outcome revealed that the most significant independent variable in explaining the variability in voluntary disclosure was quotation status. The results also showed that trading firms disclosed less voluntary information than other industry types.

In another study in New Zealand, Hossain, Perera, & Rahman (1995) tried to investigate the association between five company characteristics (firm size, leverage, assets-in-place, type of auditing, and foreign listing status) and level of voluntary disclosure of 55 New Zealand firms. An un-weighted disclosure index with 95 items divided into 11categories: General corporate information, acquisition and disposal,

financial overview, research and development, future prospect, employee information, social reporting and value-added information, segmental reporting, foreign currency, capital market data and information about directors. The study used regression analysis; the findings revealed that company size, leverage and foreign listing status were statistically associated with the extent of voluntarily disclosed, while the type of auditor and assets-in-place have no significant relationship with the extent of voluntary disclosure.

Gray, Meek, & Roberts (1995) tested the relative influence of international market pressure on the voluntary disclosure practice of 116 USA, and 64 UK Multinational Companies (MNCs). This study aimed to find whether internationally listed MNCs reveal more information in their annual reports than those MNCs listed domestically. A disclosure index with 128 items classified into 12 categories as follows: general corporate characteristics, corporate strategy, acquisitions and disposals, research and development, prospects information, information about directors, employee information, social responsibility, and value-added disclosures, segment information, financial review information, foreign currency information, and stock price information was constructed. An un-weighted approach was applied. Analysis of Variance (ANOVA) is used for statistical analysis. The study found that international listing status and country of origin impact on voluntary disclosure level, especially for the disclosure of strategic information for international listing status and the disclosure of non-financial information for the country of origin.

The study by Meek et al. (1995) also examined the factors (size, country/region, industry, leverage, multinationality, profitability and International Listing status) influencing the voluntary disclosures with 85 items that split into three categories

(strategic, nonfinancial and financial). Data sources were 116 USA, 64 UK, and 46 Continental European MNCs. A disclosure checklist was compiled based on an analysis of international trends and observations of standard reporting practices, taking into account relevant research studies and comprehensive survey. The voluntary disclosure score for each company is additive and un-weighted. The study used the regression model. The results of this study indicate that company size, country of origin and listing status are associated with overall disclosure. However, there are conflicting results for subcategories of voluntary disclosure.

Depoers (2000) tried to evaluate the level of voluntary disclosure in of 102 French listed non-financial firms and its relationship with company-specific characteristics (firm size, foreign activity, proprietary costs, labor pressure, leverage, auditor size, and ownership structure). Banks and insurance firms were excluded because of their specific characteristics. An un-weighted disclosure index wtith 65 items (divided into two categories: financial and non-financial information) was developed to measure the level of disclosure. The results showed that the extent of voluntary disclosure was statistically related with firm size, foreign activity, proprietary costs, and labor pressure, whilst leverage, auditor size, and ownership structure were insignificant.

Haniffa & Cooke (2002) investigated the association between corporate governance, cultural, and firm characteristics and the level of voluntary disclosure of Malaysian listed firms in Kuala Lumpur Stock Exchange in 1995. The sample comprised of 167 non-financial firms that issued their annual reports at the end of 1995. Banks and insurance companies were excluded because of their specific characteristics.They used a disclosure index consisting of 65 items. The index was divided into ten categories (general corporate information, information about directors picture, corporate strategy,

capital market data, research and development, prospects, social reporting and value-added information, financial review information, acquisitions and disposals, and segmental reporting). An un-weighted approach for scoring disclosure index items was applied. The findings showed that family members sitting on board, non-executive chairperson and group firm characteristics were significantly related to the level of voluntary disclosure. In contrast, cultural was not significantly linked to the level of voluntary disclosure.

In Turkey, Ağca & Önder (2007) tried to investigate the factors influencing voluntary disclosure levels for Turkish firms listed on Istanbul Stock Exchange. The 2003 annual reports of the companies were used to collect the data of this study. The sample of the study contained 51 firms from various sectors excluding banks and insurance. They used a checklist of 87 items split into three categories (Strategic Information, Non-financial Information and Financial Information). This study tested the disclosure level for sectoral groups, namely Food, Construction and the Other (firms in the print-publishing, electronics and technology and logistics and transport sectors). The "Other" group has the highest level of voluntary disclosure in terms of Strategic Information and Non-financial information, while the "Food" group has the highest level of voluntary disclosure in terms of Financial Information and Total Information. They applied Ordinary Least Squares (OLS) estimation technique to test the effects of company size, leverage, auditor, ownership structure, profitability, and multi-nationality on the level of voluntary disclosure. The results showed that profitability and company size are significant for the "Strategic Information" model; Auditor and company size are significant for the "Financial Infornation" model; leverage is significant for the "Non-

Financial Information" model. Auditor, profitability, and company size are significant for the "Total Disclosure" model.

Boesso & Kumar (2007) used a different method to measure the extent of voluntary disclosure by applying content analysis. This study aims to investigate country differences in the voluntary disclosure of Italian and USA companies. Content analysis was applied to determine the quantity and quality of voluntary disclosures in the management discussion and analysis section of annual reports of 72 Italian and the USA companies. The independent variables were: the size, instability and volatility, business complexity, the relevance of market-based intangible asset management, corporate governance structure and company emphasis on stakeholder management. The relationship was examined using the Ordinary Least Square (OLS) regression technique. The study found that firm emphasis on stakeholder engagement was the strongest predictor of voluntary disclosure volume and the only predictor in the case of USA firms. Regarding Italian firms, some significant predictors exist, including business complexity, industry volatility, and company emphasis on stakeholder engagement. However, the findings are diverse in the case of disclosure quality. Emphasis on engaging various stakeholders and the need for intangible asset management are found to be significant predictors of the disclosure quality of Italian firms, while no significant relationship is found in USA firms.

Lim, Matolcsy, & Chow (2007) examined the relationship between board structure and voluntary disclosure in annual reports. In particular, it addresses the incentives within the agency theory framework for both inside and independent directors to disclose additional information voluntarily. Moreover, it gives evidence on the association between the total of voluntary disclosure and the categories of voluntary

disclosure, such as forward-looking, strategic, non-financial and historical financial disclosures and board composition. The sample was based on 181 Australian companies. The study has developed and hand-collected 67 items from annual reports to develop the total voluntary disclosure index and the sub-indices of voluntary disclosure. The total voluntary disclosure index contains three categories including strategic information, non-financial information, and financial information. A two-stage least squares regression (2SLS) model is used to estimate the effects of board composition on voluntary disclosure. The findings provide some important insights. First, the study found that there was a positive relationship between board composition and the extent of voluntary disclosure of information in annual reports. Second, the study also found that independent boards provide more voluntary disclosure of forward-looking information and strategic information. Nevertheless, board structure has no bearing on the voluntary disclosure of non-financial and historical financial information. The results are enhanced by different empirical specifications and sensitivity tests.

Yuen, Liu, Zhang, & Lu (2009) tested the effect of ownership concentration, government ownership and company characteristics, the percentage of tradable share, CEO-is-top director, and independence of board and audit committee on the voluntary disclosure provided by publicly listed companies on the Shanghai Stock Exchange (SSE) in China. The sample was 200 randomly selected non-banking companies from the Shanghai A-share market. The study used a checklist of 34 items of voluntary disclosure that divided into six categories (board structure and functioning, employees, directors' remuneration, audit committee, related party transactions, stakeholder interests); with the weighted approach used in this study took the ratio predefined in the disclosure index. Multiple regression models were applied in this study. The control variables were the

firm-specific characteristics (firm size, leverage, profitability, industry type). The findings show that the adjusted R squared for the model is 31.3%. The level of voluntary disclosure of publicly listed companies on the SSE is relatively low (21.4%). There was a significant positive relationship between the percentage of tradable shares and independence of the board, and voluntary disclosure at the 1% and 5% levels, respectively, while the audit committee was found to have a significant negative relationship with voluntary disclosure at the 5% level.

Rouf (2011) examined the relationship between corporate characteristics, governance attributes and the extent of voluntary disclosure. The sample was120 listed non-financial companies on the Dhaka Stock Exchange (DSE) in 2008. The explanatory variables were corporate characteristics (firm size and profitability) and corporate governance attributes (non-executive directors, audit committee, board leadership structure, board size and ownership structure). To measure voluntary disclosure, an un-weighted approach was used. The author established the disclosure checklist included 91 items which depended on previous research. The Ordinary Least Squares (OLS) regression model was applied to examine the relationship between voluntary disclosure and the explanatory variables. The findings indicated the adjusted R-squared is 58.6%. There are positive associations between board size, audit committee and the voluntary disclosure at the 10% level for the first two variables and the 1% level of role duality. While ownership structure and net profitability were found to have a negative relationship with voluntary disclosure at the 1% level and the 5 % level, respectively. non-executive directors non-executive directors was not significantly related to voluntary disclosure. About firm size, it was not significantly related to disclosure when measured by either the total assets of the firm or the total sales of the firm.

Binh (2012) have involved listening to the gap between Financial Analysts' claims and Financial Managers' perspectives of information disclosure with the meeting ability of available information in the Vietnamese non- financial listed companies' annual reports. The study established an item list of voluntary disclosure contains 72 items divided into six categories: financial information, forward-looking information, general corporate information, audit committee, board structure disclosure, employee information, and social responsibility and environmental policy. The sample contains 199 non-financial listed companies in Vietnam in 2009, To collect the data of the study, a questionnaire was established. The questionnaires were sent by email to 92 financial analysts and 106 financial managers to rate the importance level. These officers have indicated the importance of the items on a scale from 1 to 5. 1 is "unimportant," 2 is "slightly important," 3 is "moderately important," 4 is "very important," and five is "essential." The Spearman rank correlation coefficients were applied to compare the differences in the evaluation of the relative relationship between the important levels of items of information ranked by the financial analysts and the financial managers and its actual extent of voluntary disclosure in annual reports of these companies. The findings showed that both financial analysts and financial managers had a high agreement about the important level of items, and the preparers need to disclose much more information in annual reports to meet the requirements of users.

Uyar et al. (2013) is the anther study in Turkey that examined the factors that may affect the extent of voluntary information disclosure of Turkish manufacturing companies listed in the Borsa Istanbul (BIST). These factors were: institutional/corporate ownership, ownership diffusion/dispersion, independent directors, board size, corporate governance index, listing age, firm size, profitability, leverage and Auditor size. A checklist was

constructed in this study by examining a wide range of recent studies from various countries. The 96-item checklist is categorized under 12 subtitles, namely, general information, corporate strategy, corporate governance, financial performance, key non-financial information, forward-looking information, employee disclosure, social responsibility, environmental disclosure, segment reporting, risk management, and customer and supplier disclosure. The data collection methodology of the study is the content analysis of annual reports of the corporations listed on the BIST for the year 2010. To analyze the results, they applied Ordinary Least Square (OLS) and Two-Stage Least Squares (2SLS) regressions to examine the association between the explanatory variables and voluntary disclosure level. The findings provide evidence of a positive relationship between the extent of voluntary information disclosure and firm size, auditing firm size, proportion of independent directors on the board, institutional/corporate ownership, and corporate governance. Nevertheless, leverage and ownership diffusion were found to have a significant negative relationship with the voluntary disclosure level. The remaining variables, namely, profitability, listing age, and board size were found to be insignificant.

The purpose of the study of Kaya (2014) is to empirically examine the impact of several firm-specific characteristics on the extent of voluntary disclosure in eXtensible business reporting language (XBRL). These characteristics were: firm size, the age of firm, return on assets, liquidity, and innovativeness. A disclosure checklist consisting of 54 items in XBRL format is developed to examine the extent of voluntary disclosure in the 2008 annual reports of 51 USA-listed firms. The index contains three categories: financial information, non-financial information, and general information. For scoring both quantitative and qualitative information, an un-weighted approach was applied. Consistent with most previous disclosure studies, this study used dichotomous scoring

where “1” is assigned when an item is disclosed and “0” otherwise. The study used the unranked OLS approach. The results showed that firm size and firms’ level of innovativeness are significantly and positively related to the extent of overall disclosures. The study indicated that different factors are important in explaining the voluntary disclosures of financial, non-financial, and general information.

Scaltrito (2016) evaluated the extent of voluntary disclosure in the companies listed on the Italian Stock Exchange. In particular, this study examined the impact of certain determinants (leverage, firm size, sector auditor, performance and ownership concentration) on voluntary information disclosed by Italian listed companies. To do this, 203 annual reports of Italian listed companies for the year 2012 were analyzed. An index was created and used as a dependent variable in an OLS model to understand the association between the determinants mentioned above and voluntary disclosure. The disclosure score is included of 38 items. The index is divided into eight categories: firm performance, general information, forward-looking information, human capital, research and development projects, stock market information, segment reporting information and other information. To differentiate the information disclosed in annual reports, a score was assigned to each item in the index (2 points if an item was reported in qualitative and quantitative terms, 1 point if the item was reported in qualitative terms, 0 points if the item was absent). The score was not weighted because all items were equally important for the research purpose. The findings of the study showed that human resource information was the voluntary disclosure item disclosed with the highest frequency, and both firm size and auditors had a positive relationship with the total amount of voluntary information disclosed by Italian listed companies.

2.5.2. Empirical Studies on Voluntary Disclosure of Banks

In general, up to date, there has been a few empirical studies related specifically to disclosures of banking sector. Most of them have concentrated on disclosures of non-financial firms' and their relationship with firm characteristics. There are few studies on disclosure have tried to evaluate the level of voluntary disclosure and its determinants. Hence, this section reviews the earlier studies that assessed the voluntary disclosure level for determining a potential gap in the pertinent literature and how can be expanded in a try for filling this gap by this study.

The study of Hossain & Reaz (2007) examined the level of voluntary disclosure of 38 listed banks in India; it investigated the relationship between six bank characteristics (bank size, age, multiple listing, the complexity of business, board composition and assets-in-place) and the level of voluntary disclosure of the sample banks. They constructed an un-weighted disclosure index consisting of 65 items of voluntary information that divided into eight categories (background about the bank/general corporate information, corporate strategy, corporate governance, financial performance, risk management, accounting policy review, key non-financial statistics, corporate social disclosure and other information), in which an item scores 1 if disclosed and 0 if not. The employed Ordinary Least Square (OLS) regression. The findings showed that Indian banks disclosed a large amount of voluntary information. Also, it revealed that bank size and assets-in-place are positively and significantly associated with the extent of disclosure. Nevertheless, there are no significant relationship between bank age, diversification, board composition, multiple exchange listing and complexity of business and the level of voluntary disclosure. The findings also showed that the highest disclosure score was 55% was and the lowest was 20%. Furthermore, the study showed that the

average of published voluntary items was 35% by Indian banks. They also found that public banks revealed more voluntary information than private banks. Hossain & Reaz (2007) indicated that there have been a few studies on voluntary disclosure in the banking sector, especially in the developing country and they concluded that their study differs from other studies because it concentrated on banking companies. The limitations of this study were the use of a single financial year and a single country.

Hossain & Taylor (2007) examined the association between some of bank characteristics (bank size, audit firm link, and profitability) and the level of voluntary disclosure of 20 domestic private banks. They identified relevant 45 voluntary disclosure items that expected to disclose by the Bangladeshi banks in their annual reports. These items were divided into seven categories: General corporate information, information about directors, financial overview, research and development, employee information, information regarding bank's activities, and others. To measure the level of voluntary disclosure score for each bank, the un-weighted disclosure method was applied. A multiple regression model was used to examine the association between the level of voluntary disclosure and bank characteristics. The findings showed that bank size and audit firm are significant associated with the level of disclosure of the banks. On the other hand, there is no significant association between the level of voluntary disclosure and profitability.

Htay (2012) examined the influence of corporate governance on voluntary financial information disclosure of Malaysian listed banks. The sample includes twelve listed banks in Bursa Malaysia from1996 until 2005. A weighted voluntary financial accounting information disclosure score was used as a dependent variable; the questionnaire was developed to obtain views on the importance of each disclosure item

from financial analysts and accountants. This weighted score was based on the opinions of one hundred and thirty-one accountants and fifty-one financial analysts. The list of disclosure items included: summary of historical results, segmental information, contingent liabilities and contingent assets, and other information. Data were collected either from the annual reports of the banks or from Bloomberg. The statistical method that applied in this study was the panel data regression since the data comprise the nature of both time series and cross-section. The results of the panel data regression show that higher Proportion of independent non-executive directors on the board (at 1% Sig. Level), lower Proportion of director ownership (at 10% Sig. Level) and higher Board size (at 5% Sig. Level) have more voluntary financial accounting information disclosure. The other variables such as Board leadership structure, Proportion of institutional ownership and Proportion of block ownership are in line with hypotheses while Board size is not and the main reason for board size not being in line with the hypothesis is the sample firms already have an optimal board structure.

Agyei-mensah (2012) carried out a study to examine the impact of company characteristics (bank size, profitability, debt-equity ratio, liquidity and audit firm size) on the voluntary disclosure level of 21 rural banks in the Ashanti region of Ghana for the year 2009, The researcher adopted 27 items, including financial and non-financial items. A dichotomous scoring method was applied whereby an item is scored one if it is disclosed and zero if otherwise. Regression analysis was used to examine the relationship between selected bank characteristics and the extent voluntary disclosure, the findings showed that profitability is positively related to the extent of disclosure, while debt-equity ratio, liquidity, bank size and audit firm size were insignificantly associated with the disclosure level.

Another study in Bangladesh that conducted by Mamun & Kamardin (2014) aimed to examine the corporate voluntary disclosure practices of the listed banks in an emerging economy. The sample of this study was 24 banks listed on the Dhaka Stock Exchange (DSE), the primer stock market in Bangladesh. The study used a disclosure checklist comprising 65 items to analyze disclosure practices of sample companies. The selected 65 items are categorized into nine different groups of information as general corporate information, corporate strategy, corporate governance, financial performance, risk management, accounting policy, non-financial statistics, corporate social responsibility, and other items. A dichotomous approach was used to conduct the survey where each company was awarded a score of '1' if the company appears to have disclosed the concerned reporting variable and '0' otherwise. The score of each company was totaled find the net score of the company. The study applied a univariate analysis. Beta convergence and sigma convergence analysis are conducted to understand the changing dynamic. Wilcoxon test was performed to identify whether the changes of the voluntary disclosure index from period to period is significant. Results showed that the extent of voluntary disclosure significantly improves from 2005 to 2008. However, the extent of disclosure items related to corporate governance and risk management is lower than other disclosure categories. The overall findings of this study contribute to the accounting and economic literature by adding empirical results of voluntary disclosure of a highly regulated industry from an emerging economy. Nevertheless, the findings have the limitation to generalize for other industries as well as for banks from countries.

Hawashe (2014) tried to achieve four objectives: evaluate the extent of voluntary disclosure in the annual reports of Libyan commercial banks, over the period 2006 to 2011, investigate whether there is any significant increase in the voluntary disclosure

level, examine whether there is any significant relationship between seven bank characteristics (age of bank, size of bank, bank liquidity position, profitability, government ownership, foreign ownership, and listing status) and the voluntary disclosure level, and explore the opinions and perceptions of Libyan bank s' annual report preparers related to the current mandatory financial reporting and voluntary disclosure practice matters. The study used an un-weighted disclosure index, containing 63 items split into 5 categories: general information, social responsibility information, financial ratios and other statistical information, accounting policies and corporate governance information. The research data was analyzed using content analysis, descriptive and multiple regression analyses. The findings showed that the leve of voluntary disclosure in the Libyan banks was low, with an average of 38%. Nevertheless, there was an increase in the overall of voluntary disclosure level and its categories over the study period. The regression findings showed that bank size and listing status are significant in explaining variation in the voluntary disclosure level, whereas there is no significant relationship between other independent variables and the level of voluntary disclosure.

The objective of the study of Abeywardana & Panditharathna (2016) was to identify the level of voluntary disclosure and its determinants. In order to achieve this objective, the study developed a voluntary disclosure index with 83 items including nine sub-categories: general information, corporate strategy, corporate environment, financial performance, risk management, forward-looking information, human and intellectual capital, competitive environment and outlook, and corporate social responsibility. The sample of this study was 50 banks and finance companies. The study employed an un-weighted approach; the companies were awarded (1) if the item is disclosed and (0) if the item is not disclosed. To identify the determinants of voluntary disclosure, panel data

analysis used for the study. The study used content analysis in the annual reports of quoted public banking and finance companies for the time period from 2012 to 2015. Moreover, this study analyzes the selected variable to identify the determinants of voluntary disclosure level by employing panel data analysis. Ordinary Least Square (OLS) and Fixed Effect model were applied in this study. The study found that disclosures about general information, corporate environment, financial performance and risk management has more than 61% level, and corporate strategy, forward-looking information, human and intellectual capital, competitive environment and outlook and corporate social responsibility information have less than 45% average in 2015, and it indicates that there is an improvement in the context of voluntary disclosures. Moreover, the study found that the determinants of voluntary disclosure level were: firm size, profitability, firm's age, leverage and board independence, and among them firm size, profitability and firm's age have a positive relationship and leverage, and board independence have a negative relationship.

Achoki et al. (2016) tried to examine the impact of voluntary disclosure on the financial performance of commercial banks in Rwanda. The study examined general and strategic disclosure, financial disclosure, forward-looking disclosure, social board disclosure as a proxy for measuring voluntary disclosure. Firm performance was measured using Return on Equity (ROE). This study used a descriptive research design. The study took a sample of 14 commercial banks in Rwanda. Census approach was employed to determine the sample size. Data was collected through developing a disclosure index consisting of 47 disclosure items. Secondary data was collected using documentary information from Banks annual accounts for the period 2011 to 2015. Data were analyzed using a multiple linear regression model. Results revealed that there is a

strong relationship between the voluntary disclosure, firm size and financial performance. The study found a positive relationship between financial, forward-looking and board and social disclosure and return on equity. A 1% increase in financial disclosure leads to a 54% increase in financial performance of commercial banks, while a 1% increase in forward-looking disclosure leads to a 33.9% increase in return on equity and a 1% increase in board and social disclosure leads to a 50.3% increase in return on equity. In contrast, the study found a negative relationship between general & strategic disclosure and return on equity. This means that a 1% increase in strategic disclosure leads to a 20.2% decrease in return on equity of a firm. The study concluded that firms should lean toward disclosure of financial and social board disclosure to increase their performance. This relationship is expected as firms disclose more its information asymmetry reduces which reduces the cost of capital. The study recommends more study on the role played by voluntary disclosure on other sectors like agriculture to enrich the study in Rwanda.

2.5.3. Discussion

This part has checked out the related studies on voluntary disclosure that have tried to measure the level of voluntary disclosure its determinants in firms' the annual reports. Most of these studies have been conducted on the non-banking firms, yet, a few have been conducted on banks. The review of prior studies showed that most of these studies have concentrated on voluntary disclosures in non-banking firms whether in developed or developing countries. All these studies have excluded the banks and financial firms from the study population due to their special regulations and requirements of disclosure and their different activities from other industries.

2.5.3.1. Voluntary Disclosure Measurements

Overall, To measure the level of voluntary disclosure in the corporate annual reports, all the previous studies on voluntary disclosure that mentioned in this section applied a disclosure index as a suitable research method. Both weighted and un-weighted approaches have been used by most of previous researchers to determine the extent of voluntary disclosure, most of these reviewed empirical disclosure studies applied an un-weighted approach. The difference between weighted and un-weighted approach is that in un-weighted approach, all items and categories of voluntary disclosure represented in they affect the total index of voluntary disclosure equally, whereas in weighted approach there are some items and categories are given different values. Thus, they unequally affect the total index. That is, an un-weighted index does not give any preference to items and categories when their values calculated, that means all items and categories are equally important. Whereas weighted approach does. The unweighted disclosure index is used to avoid biases and discretions.

Most prior studies used a single point of time, though there were studies have used longitudinal study with panel data approach, It is noticeable, there is an increasing interest in the application of longitudinal studies because they provide more explanation as to how voluntary disclosure practices develop over time.

2.5.3.2. Voluntary Disclosure Categories

The number of information items and categories of voluntary disclosure that selected to form a disclosure index differs among previous disclosure studies. For example, Agyei-mensah (2012) adopted 27 information items of voluntary disclosure, including two categories: financial and non-financial items, while Meek et al. (1995)

constructed the voluntary disclosures index with 85 items that split into three categories (strategic, nonfinancial and financial).

Some researchers constructed the index of voluntary disclosure with more than three categories. Hawashe (2014) created a checklist includes 63 items divided into 5 categories: general information, social responsibility information, financial ratios and other statistical information, accounting policies and corporate governance information. The study of Yuen et al. (2009) used a checklist of 34 items of voluntary disclosure that divided into six categories (board structure and functioning, employees, directors' remuneration, audit committee, related party transactions, stakeholder interests). Hossain & Reaz (2007) constructed a disclosure index containing 65 items of voluntary information that divided into 8 categories: background about the bank/general corporate information, corporate strategy, corporate governance, financial performance, risk management, accounting policy review, key non-financial statistics, corporate social disclosure and other information. The selected 65 items by Mamun & Kamardin (2014) are categorized into nine different groups of information as general corporate information, corporate strategy, corporate governance, financial performance, risk management, accounting policy, non-financial statistics, corporate social responsibility, and other items. Haniffa & Cooke (2002) used a disclosure index consisting of 65 voluntary disclosure items, the index was divided into 10 categories (general corporate information, information about directors picture, corporate strategy, capital market data, research and development, future prospects, social reporting and value-added information, financial review information, acquisitions and disposals, and segmental reporting). Gray et al. (1995) constructed a big number of disclosure index consisting of 128 items of voluntary information divided into 12 categories as follows: general corporate characteristics,

corporate strategy, acquisitions and disposals, research and development, future prospects information, information about directors, employee information, social responsibility and value-added disclosures, segment information, financial review information, foreign currency information, and stock price information.

Most prior studies that have measured the extent of voluntary disclosed in the annual reports have structured a checklist of items based on reviewing the relevant disclosure literature and their own knowledge.

2.5.3.3. Determinants of Voluntary Disclosure

Prior studies that have tried to measure the level of voluntary disclosure in the annual reports have also attempted to identify its determinants through investigating its relationship with some firm characteristics such as age, firm size, listing status, profitability, liquidity, author type, industry type, ownership structure, corporate governance. The number and kinds of firm attributes that studied to test their potential influence on the level of voluntary disclosure differed from one study to another. From reviewing the literature, it can be observed that the majority of the previous studies found a positive or negative association between several firm characteristics and the level of voluntary disclosure.

In particular, there are a few numbers of empirical studies that examine the level of voluntary disclosure and its connection with bank characteristics. In addition, most of empirical studies results showed that some of the bank characteristics tested in the reviewed studies had a significant relationship with the level of voluntary disclosure, while the other studies found a non-significant association with the extent of voluntary disclosure. For instance, Agyei-mensah (2012) and Abeywardana & Panditharathna

(2016) found a positive significant statistical association between profitability and the level of voluntary disclosure practices of banks in Ghana and Sri Lanka respectively, whereas the study by Hossain and Taylor (2007) found no significant relationship between profitability and the level of voluntary disclosure in Bangladeshi banks. In addition, there are other unexplored bank characteristics that are possible to affect on the level of voluntary disclosures such as corporate governance mechanisms.

Most of the empirical studies of voluntary disclosure reviewed have applied the multiple regression model to examine the association between the level of voluntary disclosure as a dependent variable and its determinants as independent variables. Nevertheless, the results of previous studies were various in different countries in such associations.

2.5.4. The Gap in Prior Literature Studies on Voluntary Disclosure

There are a few empirical evidences of the determinants of voluntary disclosure in the annual reports of banks if they compared to the evidence from non-financial firms. Accordingly, more empirical evidence about the level of voluntary disclosure and its determinants of banks from different countries is needed in order to enhance a better understanding of the association between these factors and banking voluntary disclosure. Also, there is a requirement for more empirical studies in this area to confirm or disprove the previous results. Moreover, a few previous studies have investigated the level of voluntary disclosure in annual reports of banks longitudinally and studied the trends of the level of voluntary disclosure during a number of years.

The reviewing of the literature of prior studies indicates that there are no studies have reported the level of voluntary disclosure in the annual reports of listed banks in

Borsa Istanbul in Turkey. Therefore, the current study tries to fill the present gap in the accounting literature and for contributing voluntary disclosure studies by a longitudinal investigation of the level of voluntary disclosure in the annual reports of listed banks in Borsa Istanbul, and also to investigate the relationship between internal corporate governance mechanisms and the overall level of voluntary disclosure.

While most reviewed studies used firm characteristics and ownership structure as independent variables to investigate their effect on voluntary disclosure, there are a few studies, which examined the relationship between voluntary disclosure and corporate governance mechanisms in the banking sector, To the best of this researcher’s knowledge, there is no study examined this relationship in the Turkish banking sector.

CHAPTER 3: CORPORATE GOVERNANCE: A GENERAL REVIEW

This chapter aims to discuss the concept of corporate governance, including its definition, its importance, the international efforts to improve it, its mechanisms and the importance of corporate governance in the banking sector. It also contains an overview of the capital market regulations and corporate governance principles in Turkey.

3.1. Introduction

During the last decade, the literature on corporate governance has experienced explosive growth. After the notorious collapse of Enron in 2001, international attention has focused on the role of corporate governance to prevent companies' failures (Solomon & Solomon, 2004). The world financial crises and subsequent scandals of Enron and WorldCom contributed to the cognition on the importance of governance mechanisms and environment, not only academic but also practice circles (Li, Xu, Niu, & Qiu, 2012). The corporate fraud all over the world in the last years have clearly revealed that the financial crisis is the direct consequence of poor corporate governance (Abdulazeez, Ndibe, & Mercy, 2016). Solomon & Solomon (2004) believe that the current attention on corporate governance will be preserved into the future and that, during the time, corporate governance matters will rise in importance, instead of fade into insignificance.

3.2. Definition of Corporate Governance

The term "Corporate Governance" is frequently accepted by academics, business managers, regulators, the media and the general public. It is so generally used that authors

often fail to define it (Brickley & Zimmerman, 2010). Academic researchers indicate that there is no single and generally accepted definition of corporate governance. In the relevant literature, there is no agreement on one definition of corporate governance. For example, scholars, academics, professional bodies and regulators over the years, have defined the concept of corporate governance in many models. They describe the concept of corporate governance through their own culture, knowledge, and understanding of it. The definitions also differ by developmental level, the structure of the financial markets, financial and legal positions of the countries. Keasey, Thompson, & Wright (2005) point out that the definitions of corporate governance carry various interpretations and each definition has a special analysis, which involves different disciplines and representations.

John & Senbet (1998, p. 372) view that *"corporate governance deals with mechanisms by which stakeholders of a corporation exercise control over corporate insiders and management such that their interests are protected."*

La Porta et al., (2000, p. 4) point out that *"corporate governance is, to a large extent, a set of mechanisms through which outside investors protect themselves against expropriation by the insiders."*

Corporate governance is defined by Denis & Mcconnell (2003, p. 2) as *"the set of mechanisms-both institutional and market-based-that induce the self-interested controllers of a company (those that make decisions regarding how the company will be operated) to make decisions that maximize the value of the company to its owners (the suppliers of capital)".*

Solomon & Solomon (2004, p. 14) point out that corporate governance is *"the system of checks and balances, both internal and external to companies, which ensures*

that companies discharge their accountability to all their stakeholders and act in a socially responsible way in all areas of their business activity."

Brickley & Zimmerman (2010, p. 236) define corporate governance as *"the system of laws, regulations, institutions, markets, contracts, and corporate policies and procedures (such as the internal control system, policy manuals, and budgets) that direct and influence the actions of the top-level decision makers in the corporation (shareholders, boards, and executives)"*.

According to the Organization for Economic Cooperation and Development (OECD), *"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"* (OECD, 2015a, p. 9).

From a banking industry perspective, Basel Committee on Banking Supervision (2015, p. 3) indicates that *"corporate governance determines the allocation of authority and responsibilities by which the business and affairs of a bank are carried out by its board and senior management, including how they:*

- *set the bank's strategy and objectives;*
- *select and oversee personnel;*
- *operate the bank's business on a day-to-day basis;*
- *protect the interests of depositors, meet shareholder obligations, and take into account the interests of other recognised stakeholders;*

- *align corporate culture, corporate activities and behaviour with the expectation that the bank will operate in a safe and sound manner, with integrity and in compliance with applicable laws and regulations; and*
- *establish control functions.*"

However, no matter which definition should be adopted. According to International Finance Corporation (IFC), corporate governance should focus on supporting and promoting effective relationships between the major players in the company (shareholders, the board of directors, and senior executive managers) and other major stakeholders (IFC, 2015).

3.3. The Importance of Corporate Governance

In the last few years, there has been a growing interest in the significance of corporate governance and its influence on the various aspects of economic, legal, political and social systems. Because of increasing corporate scandals and economic crises in a number of countries, corporate governance has gained more attention. Robert & Minow (2011) considered that, in 2002, the importance of corporate governance became dramatically clear after a series of corporate collapses, frauds, and other disasters that led to the loss of billions of dollars of shareholder wealth, the loss of many jobs, criminal investigation of dozens of executives, and record-breaking bankruptcy filings.

There are several factors influencing the need for corporate governance. These factors contain: (1) The absence of an obvious framework for guaranteeing that the management is under control. (2) The looseness of accounting standards. (3) The critique of the function of the financial reports that are viewed as not being able to meet all

requirements. (4) The spectacular increase in unforeseen business collapses. (5) The restricted contribution of external auditors (6) the geographic spread of shareholders (Demirag & Solomon, 2003; Macdonald & Beattie, 1993).

To financial analysts, the importance of corporate governance can be interpreted for two reasons (Bhat, Hope, & Kang, 2006):

- The first reason linked to the integrity or the credibility of the financial disclosures. It follows from the fact that the insiders are the main source of the financial disclosures.
- The second relates to the role of the governance disclosures in lessening uncertainty surrounding the future performance of the company. This follows from their argument that because the insiders are the main drivers of the company performance, information relating to the corporate governance structure of the company should be beneficial to the analysts in forming expectations relating to future performance.

For economic development and a more significant policy issue, Claessens & Yurtoglu (2012) identify some reasons that explain why corporate governance has become paramount in many countries:

- The private, market-based investment process, which based upon the existence of good corporate governance, is now much more important for most economies than it was before.
- Privatization during the last few decades in most countries has increased corporate governance matters in sectors that were previously in the state's hands.

- Because of several changes (such as technological progress, the opening up of financial markets and trade liberalization) that make good corporate governance, especially transparency, more important to provide investors with fair and complete financial statements.
- The increase of mobilization of capital, given the increasing size of companies, the rising role of financial intermediaries, and the increase of complicated financial derivatives in investment strategies. All these make corporate governance between the companies and their investor even more important.
- The appearing of conflicts and gaps between those who related to Corporate Social Responsibility (CSR) and stakeholder engagement.
- The international financial integration has grown during the past two decades, and trade and investment flows have greatly increased.

3.4. International Efforts to Improve Corporate Governance

As mentioned earlier, after the series of corporate collapses and financial crises that have occurred over the last few decades, which led to more concern about the principles and standard of corporate governance all over the world. Since the 1980s, corporate governance has started to become important in developed countries such as the USA, the UK, and some European countries. However, because of the guidance of international organizations, corporate governance spread increasingly to the world in the last two decades or so.

In order to reach high standards for good corporate governance practice, principles and guidelines have been issued and developed by international organizations such as the Organization for Economic Cooperation and Development (OECD), Basel Committee on

Banking Supervision (BCBS), and the International Corporate Governance Network (ICGN).

This section aims to review the international initiatives that tried to improve corporate governance practice. It contains a brief overview of these international organizations and their attempts to develop corporate governance.

3.4.1. The Organization for Economic Co-operation and Development (OECD)

After the World War II, European presidents understood that the best approach to guarantee lasting peace was to support co-operation and reconstruction, rather than punish the losers to avert their predecessors' mistakes in the wake of World War I. In 1948, The Organization for European Economic Cooperation (OEEC) was founded to manage the US-financed Marshall Plan for reconstruction of the continent destroyed by war. On 14 December 1960, Canada and the USA joined OEEC members in signing the new OECD Convention. On 30 September 1961, the Convention entered into force, the Organization for Economic Co-operation and Development (OECD) was officially established. Today, there are 35 countries worldwide as members of OECD. They regularly turn to one another to identify difficulties, discuss and analyze them, and develop policies to resolve them (OECD, 2017).

In 1999, it introduced the first issue of corporate governance principles that were revised in 2004 to be compatible with financial and economic development around the world. In 2015, the OECD and G20 published the newest issue of corporate governance principles (see OECD, 2015a).

After the financial crisis in 2008, OECD revised the corporate governance principles in cooperation with the G20. The G20/OECD principles were issued in September 2015. These principles are considered as a worldwide reference point for corporate governance and serve as the basis for the following (IFC, 2016):

- OECD Guidelines on Corporate Governance of State-Owned Enterprises;
- OECD Guidelines for Multinational Enterprises;
- Guidelines on Corporate Governance of Banks, issued by the Basel Committee on Banking Supervision;
- OECD Guidelines on Insurer and Pension Fund Governance and as a reference for reform in individual countries;
- One of the Financial Stability Board's (FSB) Key Standards for Sound Financial Systems, serving FSB, G20, and OECD members;
- Use by the World Bank Group in more than 60 country reviews worldwide and IFC to support companies in implementing good corporate governance practices; and
- The ASEAN Corporate Governance Scorecard.

The aim of these Principles is to help policymakers assess and enhance the legal, regulatory, and institutional framework for corporate governance, with a view to promoting economic efficiency, sustainable growth, and financial stability. The Principles are offered in six different sections (OECD, 2015a):

1. **Ensuring the basis for an effective corporate governance framework:** The framework of corporate governance should support transparent and fair markets and the efficient allocation of resources. It should be compatible with the rule of law and promote effective supervision and enforcement.

2. **The rights and equitable treatment of shareholders and key ownership functions:** The corporate governance framework should protect and ease the practice of rights of stakeholders and assure the equitable dealing of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to get effective redress for violation of their rights. Institutional investors, stock markets, and other intermediaries.
3. **Institutional investors, stock markets, and other intermediaries:** The corporate governance framework should present sound incentives during the investment chain and provide for stock markets to operate in a way that contributes to good corporate governance.
4. **The role of stakeholders in corporate governance**: The corporate governance framework should meet the stakeholders' rights that set by law or mutual agreements and support existing co-operation between corporations and stakeholders in generating wealth, jobs, and the sustainability of financially sound enterprises.
5. **Disclosure and transparency:** The framework of corporate governance should guarantee that timely and precise disclosure is offered on all material matters about the company, including the financial situation, performance, ownership, and governance of the company.
6. **The responsibilities of the board:** The corporate governance framework should guarantee that the strategic guidance of the corporation, the effective supervising of management through the board, and the accountability of the board to the corporation and the shareholders.

3.4.2. The Basel Committee on Banking Supervision (BCBS)

The Basel Committee on Banking Supervision (BCBS) is the main global standard issuer for the prudential regulation of the banking industry. It presents a forum for banking industry supervisory issues. The central bank governors of the group of 10 countries established it in 1974 after the serious disturbances in international currency and banking markets. It is headquartered in the offices of the Bank for International Settlements (BIS) in Basel, Switzerland. Its initial name was "the Committee on Banking Regulations and Supervisory Practices" (BCBS, 2013).

Since its initiation, Basel Committee has increased its group from the G10 to 45. The first issue was in 1975 and revised several times since. In addition, it has established a set of global standards for bank regulation, most notably its landmark publications of the accords on capital adequacy that are commonly known as Basel I, Basel II and, most recently, Basel III (BIS, 2016). Its mandate is to prop the regulation, supervision, and practices of banks all over the world with the objective of improving financial stability. To achieve its mandate, the committee engages in the following activities (BCBS, 2013):

- Switching information on improvements in the banking industry and financial markets, to assist identifying current or emerging risks facing the international financial system;
- Exchanging supervisory matters, approaches, and techniques to improve common understanding and to enhance cross-border cooperation;
- Setting and developing international standards to regulate and supervise banks and to guide for sound practices;
- Treating regulatory and supervisory gaps which pose risks to financial stability;

- Observing the enforcement of standards of BCBS in members and beyond with the objective of guaranteeing their timely, consistent and effective application and contributing to a "level playing field" among globally-active banks;
- To consult with central banks and bank supervisory authorities that are not members of the committee to avail of their input into the committee policy formulation process and to improve the enforcement of BCBS standards, guidelines and good practices beyond BCBS member countries; and
- Cooperating and coordinating with other financial sector standard setters and global organizations, especially those concerned with developing financial stability.

As discussed above, because of the importance of corporate governance for the banking industry to the growth of the economy and limiting the governance problems in the banking sector, Basel Committee issued principles that are considered as important components of a good corporate governance practice. To ensure the good governance practices in the banking sector of the countries, Basel Committee issued a number of reports as a global source.

In 1999, it published a report, named "Enhancing Corporate Governance for Banking Organizations," to supervisory authorities over the world in the hope that it will help supervisors in developing the adoption of good corporate governance practices by banks in their countries (BCBS, 1999). This report was revised in 2006 and contained eight principles. The principles described in this paper illustrate the roles of the board of directors and senior managers and supervisors of a various range of banks in different countries with diverse legal and regulatory frameworks, including both member and non-member countries. These roles are represented in controlling risk and underscoring the

needs of banks to set strategies for their processes and establish accountability for carrying out these strategies (BCBS, 1999).

To treat primary deficiencies in bank corporate governance that became obvious through the financial crisis, the committee published principles for enhancing corporate governance for public comment in March 2010 (BCBS, 2010). The Basel Committee's October 2010 Principles tried to reflect main lessons from the global financial crisis, which began in 2007, and improve how banks direct themselves and how supervisors manage this critical area (BCBS, 2015).

In October 2014, it issued a consultative document of corporate governance principles for banks (BCBS, 2014a). The committee issued the final set of corporate governance principles for banks in July 2015. The committee upgraded the principles and expanded them from eight to thirteen principles (BCBS, 2015):

- **Principle 1: Board's Overall Responsibilities:** The board is totally responsible for the bank, including ratifying and supervising management's enforcement of the bank's strategic purposes, governance framework and corporate culture.
- **Principle 2: Board Qualifications and Composition:** All board members should and continue have qualifications for their functions. Also, they should realize their surveillance and corporate governance role and be capable of practice sound, objective verdict about the issues of the bank.
- **Principle 3: Board's Own Structure and Practices:** The board should determine proper governance structures and practices for its private act and put in place the means for such practices to be pursued and periodically checked out for ongoing effectiveness.

- **Principle 4: Senior Management:** Senior managers, under the guidance and monitoring of the board, should execute and run the bank's operations in a way consonant with the corporate strategy, risk appetite, remuneration and other policies allowed by the board.
- **Principle 5: Governance of Group Structures:** In a group structure, the board of the parent firm is totally responsible for the group and for guaranteeing the formation and process of an obvious governance framework proper to the construction, business, and risks of the group and its entities. The board and senior managers should recognize and comprehend the bank group's organizational structure and the risks that it poses.
- **Principle 6: Risk Management Function:** An effective function of independent risk management should exist in banks, under the authority of a chief risk officer (CRO), with adequate stature, independence, resources, and access to the board.
- **Principle 7: Risk Identification, Monitoring, and Controlling:** Banks should identify risks, observed and managed on a continuing bank-wide and individual entity basis. The sophistication of the risk management of the bank and internal control infrastructure should keep pace with alterations to the risk profile of the bank, to the external risk landscape and in sector practice.
- **Principle 8: Risk Communication:** The effective risk governance framework needs strong connection inside the bank about risk, both across the organization and by notifying the board and senior managers.
- **Principle 9: Compliance:** The board of directors of the bank is taking charge of supervision the management of the bank's compliance risk. Also, the board

should find a compliance function and ratify the bank's policies and methods for identifying, evaluating, overseeing, reporting and advising on compliance risk.

- **Principle 10: Internal Audit:** The function of internal audit should present independent guarantee to the board and should assist the board and senior management in developing an effective governance process and the long-term bank's soundness.
- **Principle 11: Compensation:** The remuneration structure of the bank should assist good corporate governance and risk management.
- **Principle 12: Disclosure and Transparency:** The bank's governance should be sufficiently transparent to its shareholders, depositors, other pertinent stakeholders and market participants.
- **Principle 13: The Role of Supervisors:** Supervisors should present direction for and oversee corporate governance at banks, containing through full assessments and regular interaction with boards and senior managers. They should also require the development and corrective action as a necessity and should exchange the corporate governance information with other superintendents.

3.4.3. The International Corporate Governance Network (ICGN)

The International Corporate Governance Network (ICGN) is a global organization involving many concerned groups of corporate governance improvement, including investors, financial intermediaries, and corporations (Solomon & Solomon, 2004). It was founded in 1995 as an investor-led organization; its mission is to develop effective principles of corporate governance and investor stewardship to progress efficient markets and sustainable economies all over the world (ICGN, 2016).

The ICGN is an investor-led body with about 650 members, two-thirds of them come from the international investor community, representing collectively over $26 trillion in assets under management in 45 countries (IFC, 2016). The organization encourages debate on corporate governance matters and holds an annual conference for members, policymakers, and academics, which works as a forum for discussion (Solomon & Solomon, 2004).

Its mission is to encourage good principles of corporate governance internationally. It published the Global Governance Principles (GGP), with the view that good corporate governance assists developing stronger corporations for investors to invest in (IFC, 2016). The four main objectives of ICGN are (Monks & Minow, 2011):

1. To present an investor-led network for the switch of viewpoints and information on corporate governance matters globally;
2. To investigate corporate governance principles and practices;
3. To improve and encourage commitment to corporate governance standards and guidelines; and
4. To generally develop sound corporate governance practice.

The (GGP) serves as ICGN's main standard for well-governed corporations and have been improved in consultation with ICGN members. The (GGP) is centered on corporate governance and how the board of directors should promote successful corporations, thereby creating sustainable value creation for investors while having regard to other stakeholders (ICGN, 2017):

- **Principle 1: Board Role and Responsibilities:** The board should work on an informed basis and in the preferable long-term benefits of the corporation with

good faith, care, and perseverance, for the interest of shareholders, while having regard to related stakeholders, including creditors.

- **Principle 2: Leadership and Independence:** Board leadership should call for transparency and balance in board and executive roles and integrity of the process in order to protect the benefits of minority investors and improve the success of the corporation as a whole.
- **Principle 3: Composition and Appointment:** There should be enough blend of directors with pertinent knowledge, independence, competence, sector experience and variety of perspectives to generate an effective challenge, debate and objective decision-making.
- **Principle 4: Corporate Culture:** The board should use high standards of business ethics, guaranteeing that its vision, mission, and aims are good and demonstrative of its values. Codes of ethical conduct should be effectively connected and integrated into the strategy and operations of the corporation, including risk management systems and remuneration structures.
- **Principle 5: Risk Oversight:** The board should proactively supervise, evaluate and approve the approach to risk management regularly or with any vital business change and satisfy itself that the approach is functioning effectively.
- **Principle 6: Remuneration:** Remuneration should be designed to effectively align the benefits of the CEO and executive officers with those of the corporation and its shareholders to aid guarantee long-term performance and sustainable value creation. The board should also guarantee that total remuneration is suitably balanced with the needs to pay dividends to shareholders and maintain capital for future investment.

- **Principle 7: Reporting and Audit**: The board should supervise timely and high-quality corporate disclosures for investors and other stakeholders relating to financial statements, strategic and operational performance, corporate governance and material environmental and social factors. A sound audit practice is significant for necessary quality standards.
- **Principle 8: Shareholder Rights:** All shareholders' rights should be equal and must be protected. Essential to this protection is guaranteeing that shareholder voting rights are directly connected to the shareholder's economic stake, and that minority shareholders have voting rights on critical decisions or transactions that influence their benefits in the corporation.

3.5 Corporate Governance Mechanisms

In the relevant literature, corporate governance mechanisms have been most widely studied. They can be broadly classified as being either internal or external to the company. Internal mechanisms are determined by internal factors, such as insider shareholding and board structures and characteristics, including the percentage of independent directors, director experiences, board committees, and ownership structures (Man, Hong, & Wong, 2013). Whereas the main external mechanisms are the external market for corporate control (the takeover market) and the legal system (Denis & McConnell, 2003).

3.5.1. Internal Corporate Governance Mechanisms

The internal mechanisms are the main mechanisms that affect the extent to which the management represents shareholders' interests. The internal mechanisms usually

comprise of the board of directors, the compensation plans that they put into place, and the company’s ownership and debt structures. Each of them has been the subject of much public concern and extensive academic research (Denis, 2001). The following are some internal mechanisms of corporate governance that are commonly mentioned in the relevant literature, which they form the essence of a company's internal corporate governance structure.

3.5.1.1. The Board of Directors

The board of directors is the top of the decision control systems of large and small organizations, in which decision agents do not afford a major share of the wealth impacts of their decisions is some form of the board of directors (Fama & Jensen, 1983). In theory, the board of directors is considered as an effective and an important corporate governance mechanism because it can control managers’ opportunistic behavior (Man et al., 2013). Jensen (1993, p. 862) points out that *“the board, at the apex of the internal control system, has the final responsibility for the functioning of the firm*.” The definitive responsibility of the board is to direct the company to achieve its objectives that set by the shareholders. To do that, the board must establish policy according to shareholder objectives, authorize key corporate decisions, select senior executives, and auditors, nominate directors, control corporate and executive performance, and define executive remuneration (Sternberg, 2004).

The board members are elected by the shareholders of the company to manage on their behalf (Denis, 2001). They have a fiduciary role regarding fulfilling their responsibilities toward the shareholders they represent (Balasubramanian & George, 2012). The board works as a fulcrum between the shareholders and controllers of a

company. They are viewed as middlemen who present balance and mediate the conflicts of interest between a small group of key managers based in company headquarters and a broad group of shareholders spread worldwide (Monks & Minow, 2011).

The board must also assure the integrity of the company's accounting and financial reporting systems, including managing risk, financial control, and compliance with regulations (Hutchinson, Percy, & Erkurtoglu, 2008). In the published literature, some board characteristics are commonly studied such as board competence, board size, board meetings and chief executive officer (CEO duality).

1. Board Composition / Board Independence

Boards usually are composed of a mix of inside and outside directors, predominantly dictated by legislative or regulatory mandates (Balasubramanian & George, 2012). Inside directors or executive directors are currently working as company officers (L. J. Johnson, Daily, & Ellstrand, 1996) or its controlling shareholders and hold senior positions in the company who own intimate knowledge about the company's operations, fundamental for the board to perform its supervising role (Balasubramanian & George, 2012).

In contrast, outside directors, also named as non-executive or independent directors, are not from the management members of the company (L. J. Johnson et al., 1996), and are recruited for their special expertise in areas that are valuable to the company (Balasubramanian & George, 2012). The non-executive directors are not necessarily independent; some of them may associate with the company or company managers through family or business relationships (Hillman, Cannella, & Paetzold, 2000;

Peng, 2004). Independent directors can be measured using the number of the outside directors as a proportion of the total number of directors (Fathi, 2013a).

Resource dependence theory infers that outside directors have the expertise, prestige, and communications which allow them to provide companies with links to the external environment (Carpenter & Westphal, 2001; Hillman et al., 2000). Sanda, Mikailu, & Garba (2005) point out that the suggestion of board composition is to help decrease agency problem. Agency theory mentions that outside directors play an important role in supervising the managers' performance and limiting their opportunism (Fama & Jensen, 1983). Independent directors are expected to be more effective in satisfying shareholders' preference for accountability and transparency, especially if they are actually executing their greater control and monitoring of managerial decisions, and therefore more relevant disclosure is expected (Moumen, Ben Othman, & Hussainey, 2016).

Turkish corporate governance principles issued by Capital Markets Board (CMB) recommended that the board of directors should be composed of at least one-third of the board of directors and in any case, two members of the board should be independent and that majority of board members should consist of non-executive members (CMB, 2003). Accordingly, in this study, the proportion of independent (non-executive) directors on the board is applied as a measurement of the board independence.

2. Board Size

Board size refers to the number of individuals who represent the board of directors, including both executive and non-executive directors. The board size, as one of the most significant corporate governance mechanism, has been a subject of theoretical

discussion; previous studies indicate that there is a role of board size in enhancing the monitoring of management. Hermalin & Weisbach (2003) found that board composition and size seem to be associated with the quality of the board's decisions on Chief Executive Officer (CEO) replacement, acquisitions, and executive compensation.

Lipton & Lorsch (1992) point out that larger board is able to take more time and effort, whereas the smaller is able to perform less time and effort, to supervising management. Having either too few or too many directors can make a problem for effectiveness in their roles (Solomon & Solomon, 2004). The too few members of directors may not allow the company to avail from an appropriate mix-of-skills and breadth of experience, while the larger board is typically difficult to manage, and may make consensus-building time to consume and difficult (IFC & Hawkamah, 2008).

In the studies that related to the issue of the board of director size commonly indicated that smaller boards seem to perform more effectively because they can hold a more candid debate, make decisions more quickly, as well as they are less easily controlled by management than a large board (Denis, 2001). Jensen (1993) advised that keeping boards small can help improve their performance because boards with more 7 members are less likely to function effectively and are easier for the CEO to control, as well as may lead to control and domination of the management, especially if the CEO is a board member.

However, Agency theory suggests that boards with the larger number have greater monitoring capacities and, thus, is viewed as an effective governance instrument in monitoring management's performance (John & Senbet, 1998). The big boards are more likely to have a larger representation of experienced independent directors who draw from

a wider range of experience and skills comprising all financial, legal and industry-specific knowledge and adding to the pool of talent that governs the company (Xie, Davidson III, & Dadalt, 2003).

The challenge of choosing the accurate board size is striking a proper balance within the framework mandated by law, hence, the board size should allow the company to hold productive and constructive debates and make quick and real decisions (IFC & Hawkamah, 2008). According to Article 23 of Turkish Banking Law issued by the Banks Association of Turkey (TBB) No. 5411, The board of directors of each bank must have at least five members, including the general manager (TBB, 2013).

3. Board Meetings

The majority of corporate governance codes and guidelines all over the world indicate that the board of directors should meet at least four times a year. For example, IFC & Hawkamah (2008) suggest that the board should meet regularly, at least four times in a year, but in line with best practice, from six to ten meetings may constitute a proper number of meetings in a year, in particular when committees meet between board sessions.

The number of board meetings is considered as an indicator of directors' diligence (Villanueva-Villar, Rivo-López, & Lago-Peñas, 2016). The board diligence includes factors such as the number of board meetings and the behavior of each board members surrounding such meetings (e.g., preparation before meetings, attentiveness and participation during meetings, and post-meeting follow-up) (Carcello, Hermanson, Neal, & Riley JR., 2002). The number of board meetings is only one of these factors that can be publicly noticeable. One basic measure of the effectiveness of each board is that how

often they meet to address the different issues facing their companies (Carcello et al., 2002; Vafeas, 1999). Directors who meet frequently are probably to discharge their responsibilities in accordance with the interests of shareholders because more time can be devoted to, issues such as disclosure and transparency, conflicts of interest and monitoring management. Vafeas (1999) indicates that a larger number of board meetings per year is related to improve board effectiveness and company performance. Therefore, from the agency perspective, a board that is more diligent in discharging its responsibilities enhances its effectiveness and increase the level of its supervision, as well as improves financial reporting quality. As a result of increasing supervision, it is expected that decreasing information asymmetry and lower agency costs, thereby increasing disclosure and transparency (Nelson, Gallery, & Percy, 2010).

Contrariwise, directors who infrequently meet may have no time to find out about such complex matters and their time may only be for rubber-stamping management plans. Rare board meetings are likely to indicate limited interest in the company, or even a weak of interest, on the members of the board (Villanueva-Villar et al., 2016). Lipton & Lorsch (1992) suggest that one of the main obstacles to board effectiveness is the lack of time to complete board responsibilities.

Accordingly, the number of board meetings is a good proxy to evaluate the effectiveness of board performance and internal corporate governance (Man et al., 2013). Khanchel (2007) points out that the agency theory stipulates that the board meetings frequency influence the strength of the component of corporate governance.

4. Role Duality / Chairperson Independence

Role duality represents a situation in which the Chief Executive Officer (CEO) of a company is the chairperson of the board of directors at the same time (de Haan & Vlahu, 2016). The function of the chairperson is to manage board meetings and supervise the process of recruiting, firing, evaluating, and remunerating the CEO (Jensen, 1993). Multiple researchers believe that the dual board structure seriously threatens the independence of the board (Filatotchev & Nakajima, 2010). Nevertheless, in the relevant literature, CEO duality can be explained in two different ways by agency theory or stewardship theory.

According to the agency theory, the duality role makes personal power for CEO that may affect the control role applied by the board (Grassa & Chakroun, 2016), which lead to management domination of the board and resulting in poor performance (Keasey et al., 2005). As a result, the CEO will be capable of controlling board meetings, select agenda items and choose board members (R. M. Haniffa & Cooke, 2002). Moreover, the theory implies that role duality can affect threaten the independence of the board and can affect negatively the effectiveness of the control exercised by the board (Grassa & Chakroun, 2016). The absence of duality of functions ensures that the decisions taken by the board of directors reflect the ideas of the majority of members and not the dominant body (Ghazali, 2010). Jensen (1993) notes that the advantages of separation between the two positions of chairperson and CEO are in dismissal pay compensation and evaluation as well as in the shareholders' interest. Furthermore, the separation between board chairperson and CEO roles is deemed as a good practice, as it can help to accomplish a proper balance of power, improve accountability and increase the board's capacity for decision making independent of management, as well as is viewed as one of the

conditions of avoiding conflict between management and shareholders' interests (OECD, 2004)

On the other hand, stewardship theory suggests that management is inclined to run in the best interests of the company and shareholders (Dahya, Lonie, & Power, 1996). Role duality enables the CEO to lead a company easily for accomplishing its objects with less interference (R. M. Haniffa & Cooke, 2002). Haat, Rashidah, & Mahenthiran (2008) point out that the separation of roles is not vital since many companies have good performance with mixed roles and have powerful boards fully capable of providing sufficient checks. They also think that when the role is merged, the CEO can be able to shape the company to accomplish stated objectives due to less interference and that role duality lead to enhance the effectiveness of the board. Brickley, Coles, & Jarrell (1997) argue that separation between CEO and the chairperson and positions may incur costs in monitoring the chairperson.

According to corporate governance principles, the board chairman and chief executive officer (CEO) should be not the same person (CMB, 2003).

3.5.1.2. Audit Committee

The effectiveness of the board is also affected by board committees (John, De Masi, & Paci, 2016). The boards themselves should establish and use board committees to improve their work, particularly in audit, remuneration, nomination, and risk (IFC, 2016). According to United Nations Conference on Trade and Development (UNCTAD), the establishing of board committees is intended to improve independent judgment on issues in which there is potential for conflict of interest, and to bring specialized expertise in fields such as audit, risk management, the election of board members and executive

remuneration (UNCTAD, 2006). Appropriate board committees should help the board's capability to achieve the following (IFC, 2016):

1. Addressing a larger number of issues more efficiently by allowing experts to focus on particular fields and provide board recommendations;
2. Improve subject-specific expertise in the company's activities, such as financial reporting, risk management, and internal controls;
3. Promote the objectivity and independence of the board's decision, insulating it from the potential undue impact of managers and controlling shareowners, in such key areas as remuneration, director nomination, and oversight controls.

The audit committee is considered as the most important board committees. It plays a vital role in assisting the board of directors in fulfilling its responsibilities. To strengthen corporate governance, many regulations and guidelines all over the world require boards of directors to establish an audit committee made up of independent directors who have financial expertise (Needles & Powers, 2011). The Basel committee defines the audit committee as *"a committee of the board of directors and usually consists of non-executive directors who are independent of management. Its features and denomination may, however, vary across countries"* (BCBS, 2001, p. 15).

DeZoort (1997) notes that companies with a strong audit committee have motives to avert negative impacts such as litigation and damage to reputation. The audit committee should be independent, competent, financially literate, sufficiently resourced, and appropriately compensated in order to perform effectively its supervision functions (Yuen et al., 2009). DeZoort & Salterio (2001) showed evidence that the presence of a strong independent audit committee may lead to more audit effectiveness and efficiency through

decreasing external auditors' perceptions of customers' business risk. Moreover, Forker (1992) discusses that the presence of an audit committee develops the internal control system. He also mentions that audit committee is one of the most effective monitoring mechanisms to enhance the quality of disclosure.

The audit committee should provide supervision of the internal audit activities (OECD, 2015a). International Organization of Securities Commissions (IOSCO) states that it should supervise both the process of selecting and appointing of the external auditor and the conduct of the audit (IOSCO, 2002) and should also be charged with supervising the overall communication with the external auditor including the nature of non-audit services provided by the auditor to the company (OECD, 2015a). Although the external auditor is formally responsible, and generally reports, to the shareholders, in practice, the audit committee should work as a proxy for the shareholders because the auditor rarely has a direct connection with them (IOSCO, 2002). Another of the committee's functions is to guarantee that sufficient systems exist to safeguard the company's resources and that accounting records are reliable (Needles & Powers, 2011). In sum, the audit committee is the front line of defense against fraudulent financial reporting.

The BCBS (2015) reported that the audit committee should be wanted for systemically significant banks and should contain members who have experience in audit practices, financial reporting, and accounting. It also identified that the audit committee is, in particular, accountable for (BCBS, 2015):

i. Framing policy on internal audit and financial reporting, and supervising the financial reporting process;

ii. Providing supervision of and communicating with the bank’s internal and external auditors;
iii. Approving, or suggesting to the board or shareholders for their consent, the appointment, remuneration, and dismissal of external auditors, as well as evaluating and approving the audit range and frequency;
iv. Receiving audit reports and guaranteeing that senior management is taking necessary corrective steps in a timely way to process control weaknesses, non-compliance with policies, laws, and regulations, and other problems defined by auditors and other control functions;
v. Supervising the foundation of accounting policies and practices by the bank; and
vi. Studying the third-party views on the design and effectiveness of the overall risk governance framework and internal control system.

Turkish banking Law No. 5411 determines that the audit committee in banks must consist of at least two members who do not have executive duties (TBB, 2013)

3.5.1.3 Internal Audit

After repeated financial scandals in the past two decades and with the widespread perception of risk as an integral aspect of corporate governance, the importance of internal audit has increased as a significant element of good corporate governance practices (Allegrini, Melville, Paape, & Selim, 2009). According to The Institute of Internal Auditors (IIA), “*internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to*

evaluate and improve the effectiveness of risk management, control, and governance processes" (IIA, 2018).

Allegrini et al. (2009) recommend that internal auditing should be deemed as significant subsets of corporate governance. Corporate governance principles for banks issued by Basel committee in 2015 require that banks should have an independent and effective internal audit function with sufficient authority, stature, resources and easy access to the board of directors (BCBS, 2015). Development of a strong internal audit function plays a pivotal role in assisting the board to discharge its governance responsibilities, refining corporate governance procedures, developing internal control and strengthening risk management (Ahmet Tanç, 2015).

The effective internal audit function presents pivotal confidence to the board of directors and senior management (and the supervisors) as to the quality of internal control system, thus reducing the risk of loss and reputational damage (BCBS, 2011). Companies that effectively manage internal auditing are better capable of defining business risks and process and system inefficiencies, take a proper corrective decision and ultimately support continuous development (IIA, 2010).

Internal auditing involves a broad scope of activities, such as financial statement auditing, compliance auditing, operational auditing, and information technology auditing, as well as it is accepted as a needed function for the reliability of financial reporting, compliance of acts and regulations, efficiency of operations, and information system safety (Ahmet Tanç, 2015). According to OECD (2015a), internal auditor has significant functions including supervising the internal control systems, covering financial reporting

and the use of corporate assets and guarding against abusive related party transactions, as well as they should maintain direct access to the board.

Internal auditors are important to support the efficient and strong disclosure process and appropriate internal controls because the internal auditors reporting is important for the board's capability to assess actual company operations and performance. It is also suggested as a sound practice that the internal control reports should be contained in the financial reports, explaining the internal control structure and procedures for financial reporting (OECD, 2015b).

In short, Basel committee states that the internal audit function is charged with the third line of defense, conducting risk-based and general audits and reviews to present confidence to the board of directors that the whole governance framework is effective and that policies and processes are in place and consistently implemented (BCBS, 2015).

3.5.1.4 Ownership Structure

In recent years, the ownership structure of the company, as a portion of the governance mechanisms, has undergone an important discussion as one of the essential corporate governance matters in most economies. Shareholders are referred to the owners of the company and can be split into the following groups: Large Shareholders and Small Shareholders; or Institutional Shareholders and Individual Shareholders.

Ownership structure and the impact that particular shareholders exert on management play a vital role in determining the potential for wealth transfers between bondholders and stockholders, and are significant components of corporate governance (Ashbaugh-Skaife, Collins, & LaFond, 2006). Jensen (1993) and Shleifer & Vishny

(1997) discuss that blockholders or institutional investors who hold major equity positions in a company are significant to a well-functioning governance system. According to the authors, the reason for this is that they have the financial interest and independence to view company management and policies in an unbiased way, and they have the voting power to put pressure on management if they observe self-serving behavior. Gordon & Pound (1993) notice that the share ownership structure significantly affects voting outcomes on shareholder-sponsored proposals to change corporate governance structures.

The agency theory infers that where there is a separation of ownership and control of a company, the potential for agency costs rises because of interest conflicts between the contracting parties (Rouf & Harun, 2011). Ang, Cole, & Lin (2000) and Armstrong, Guay, & Weber (2010) focus on the agency conflicts between various groups of equity ownership and their influence on the demand for accounting information. They imply that the expected relationships between the demand for accounting information and ownership structure are driven primarily by economic motives and that such demand differs cross-sectionally with ownership structure.

In the published literature, Ownership structure can be divided into two categories (Jensen & Meckling, 1976):

1. Insiders or managers of the company who also act as shareholders if they acquire a large percentage of the company's shares, and this is considered to be useful in reducing agency conflicts and aligning the interests of management and shareholders.

2. Outsiders, who hold an important number of the company's shares, have more power and more motivation to monitor management activities, especially the financial reporting process, thereby improving the corporate disclosure.

The following are the most common types of ownership: managerial or directors' ownership and family ownership (internal ownership), and institutional ownership and government ownership (external ownership).

- **Managerial or Directors Ownership**

Managers who hold a large part of the company shares have more motivations to maximize job performance to ensure better company performance (Ghazali, 2010). Managerial ownership can assist alleviate agency conflicts between managers and shareholders (Jensen & Meckling, 1976). However, managers hope to consume private benefits of control at the expense of their owners; higher ownership may enable them to do so with less fear of punishment (Denis, 2001).

- **Family Ownership**

It represents the concentration of the ownership of the company in the family nucleus, that is the ability for supervision, decision making, information transparency and other aspects that inherent to the company would be subject to family judgment, and there would be no variety of ideas, which may affect the objectives of the company (Whiting & Birch, 2016).

DeAngelo & DeAngelo (2000) and Gomez-Mejia, Nuñez-Nickel, & Gutierrez (2001) infer that in the situation of family-owned companies, there is entrenchment by the chairperson of the board of directors when the party maintains family links with the

main shareholders. As declared by James (1999) and Anderson & Reeb (2003), the idea of the family structure is to transfer the company on to the next generations, as well as establishing a reputation for itself, which means that family-owned companies are more likely to make decisions that maximize the wealth of the business.

- **Institutional Ownership**

Institutional investors are commonly referred to as organizations, including pension funds, mutual funds, investment banks, insurance companies and private companies, that gather large amounts of money to invest them in securities, real property and other investment assets (Ingley & van der Walt, 2004; Mahoney & Roberts, 2007). It is debated that institutional investors are active shareholders who have strategic and other long-term goals for their investment apart from short-term financial profits (Anderson, Mansi, & Reeb, 2003; Monks & Minow, 2011; Welford, 2007).

In line with stakeholder theory, institutional investors are simply demanding more transparency and accountability and are frequently making good corporate governance portion of their investment criteria (Welford, 2007). Institutional ownership can split into foreign institutional ownership and local institutional ownership (Abdulmalik & Ahmad, 2016).

- **Government Ownership**

Government ownership, also called state ownership, denotes the stake or the proportion of companies' ownership that owned by governmental or state organizations and companies. Government ownership remains prevalent and has been growing, especially in banking sectors, as a result of government rescues through the ongoing

financial crisis (Laeven, 2013). The reasons for such ownership may also include resolving the severe informational difficulties inherent in developing financial systems, assisting the development process or supporting vested interests and distributional cartels (Arun & Turner, 2002).

From a resource dependence theory perspective, state ownership may allow access to critical resources, such as finance, government contracts and tax subsidies, which can enhance the performance of companies (Bauwhede & Willekens, 2008; Hermalin & Weisbach, 2012; Nicholson & Kiel, 2007). Supporters of government ownership believe that private profit-maximizing companies fail to handle concerns linked to externalities, such as those related to bank failures, whereas politicians work in the public interest which can lead to improvements in efficiency by controlling companies' decisions (Laeven, 2013).

However, economic theory predicts that state-owned companies may be inefficient and uninformative because of government objectives that are more important than profit maximization (Luo, Courtenay, & Hossain, 2006). Eng & Mak (2003) argue that agency costs are higher in state-owned companies because of conflicting purposes between pure profit goals of a commercial enterprise and goals related to the interests of the state. Since the government is a powerful body, its intervention in the companies' operations may often obstruct maximizing other shareholders' value (Tsamenyi, Enninful-Adu, & Onumah, 2007). Vernon (1979) points out that such companies may respond to signals from the government to improve public welfare or other non-profit considerations, which may not link well to an aim of value maximization.

In conclusion, Li (1994) argues that the variations in corporate governance among countries arise as a result of the differences in the ownership structure and understanding the impacts of various ownership structure is important to shed light on the corporate governance and control process of companies under different national types of institutional arrangements.

3.5.2. External Corporate Governance Mechanisms

External corporate governance mechanisms commonly refer to macroeconomic and market-level factors and other mechanisms that are not established inside the company. They have a powerful effect on all companies operating within the same economy. Former corporate governance studies have discussed various types of external corporate governance mechanisms. In this section, I will review the most common of these types, including the market for corporate control, legal environment, and external auditors.

3.5.2.1. The Market for Corporate Control

According to Manne (1965), the market for corporate control, also called the takeover market, refers to the rival forces and actions of replacing inefficient CEOs and/or other board members by means of takeovers. Jensen & Ruback (1983) view that the market for corporate control as a market in which substitutional managerial groups compete for the rights to administer corporate resources. In the same context, Sternberg (2004) points out that this phrase conventionally refers to the usage of takeovers to convey corporate ownership. However, he mentioned that it can be used widely to refer to the market in which companies can rival for shareholders, and investment managers for funds, in part on the level and kinds of accountability they afford to owners. OECD

Business Sector Advisory Group on Corporate Governance recognizes such a market in its report in 1998 *"A market for governance arrangements should be permitted so that those arrangements that can attract investors and other resource contributors – and support competitive corporations – flourish."* (OECD, 1998, p. 34).

Companies with poor performance are more likely to be targets of takeover attempts by buying their common stock, acquirers may fire managers to enhance the performances of the companies and realize a profit on the increased value of the acquired shares (Denis, 2001; Denis & McConnell, 2003). Denis & McConnell (2003) note that when internal control mechanisms are unsuccessful to a large enough degree (i.e. when there is a sufficiently large gap between the actual and the potential value of the company), there is a reason for external parties to attempt control of the company. Takeovers create value for the target company's shareholders, as well as the mere threat of a change in control may present to management with reasons to remain firm value high, so that the value gap is not large enough to warrant an attack from the external (Denis, 2001; Keasey et al., 2005). Thus, the market for corporate control imposes constraints on managers (Jensen & Ruback, 1983).

Manne (1965) sets three basic techniques in the takeover mechanism of corporate control: (a) the proxy fight, (b) the direct purchase of shares, and (c) the merger. He reports that apart from the stock market, there is no objective standard of managerial efficiency. Just the takeover plan presents some assurance of competitive efficiency among corporate managers. He infers that mergers would be the most efficient of these three tools for corporate takeovers.

However, according to Keasey et al. (2005), there is a dark side to the takeover market for shareholders; although it is considered as a possible solution to the manager/shareholder agency problem, it could also be a manifestation of this problem. He mentions that the managers interested in maximizing the scope of their business empires may waste company sources by overpaying for acquisitions rather than returning cash to the shareholders. The market for corporate control, as a corporate governance mechanism, has some limitations (Denis, 2001):

a) Control competitions are time consuming and expensive to mount; hence, they may not be effective ways of addressing with small deviations from the maximum value.
b) Target company managers may have a significant amount of control over the outcome of an attempt to take over their company.
c) The top management team has at its disposal a wide array of defensive tactics when faced with an undesirable offer.
d) While the market for corporate control is a possible solution to some conflicts of interest, it creates additional conflicts as well. The evidence shows the fact that it can exacerbate conflicts of interest between managers and shareholders.

3.5.2.2. The Legal Environment

The legal environment generally refers to laws, rules, regulations, and codes in a country. For instance, companies, bankruptcy and securities laws describe some of the rights of corporate insiders and outside investors. These laws and regulations are important components of corporate governance and finance (La Porta, Lopez-de-silanes, Shleifer, & Vishny, 1998; La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 1997).

Based on an analysis of 49 countries, Rafael La Porta, Lopez-De-Silanes, Shleifer, & Vishny (1997) find strong empirical evidence that the legal environment has large effects on the size and effectiveness of capital markets. Since the legal environment protects investors against expropriation by insiders, they argue that better legal protections allow the investors to offer entrepreneurs money at better terms, hence more outside financing will be used which in turn will lead to both higher valued and wider capital markets.

Investors are willing to finance companies when their rights are widespread and well enforced by regulators or courts. In contrast, when outside investors are not protected by the legal system, corporate governance and outside finance do not act well (La Porta et al., 2000).

In order to ensure the basis for an effective corporate governance framework, the OECD (2015a) mentions that the framework should be compatible with the rule of law and support effective supervision and enforcement. It detects that the effectiveness of corporate governance requires a sound legal, regulatory and institutional framework that market participants can depend on when they establish their private contractual relations (OECD, 2004). This framework typically comprises components of the legislation, regulation, self-regulatory arrangements, voluntary commitments and business practices that are the result of a country's specific circumstances, history, and tradition. Therefore, the desirable mix of the legal system will differ from country to country (OECD, 2015a).

Besides of the responsibility of the boards and senior management of banks for good corporate governance, the Basel Committee recognizes that there are many other ways that corporate governance can be improved, such as governments (through laws,

regulations, enforcement and an effective judicial framework) and securities regulators, stock exchanges and other self-regulatory organizations (through disclosure and listing requirements) (BCBS, 2006). The committee gives an example that corporate governance can be developed by addressing a number of legal issues, such as protecting shareholder rights; the enforceability of contracts; explaining governance roles; guaranteeing that companies operate in an environment that is free from corruption and bribery; and laws/regulations (and other measures) aligning the interests of managers, workers and shareholders (BCBS, 1999). All of these can help enhance healthy business and legal environments that support sound corporate governance and related supervisory initiatives (BCBS, 2006).

3.5.2.3. External Audit

External audit is perceived to be another important external corporate governance mechanism that may help to align the interests of managers and shareholders and decrease the potential for opportunistic behavior of managers. The governance literature views the choice of external auditors as an indicator of the corporate governance quality (Schiehll, Terra, & Victor, 2013). External auditors play an important role in maintaining market confidence in audited financial reports (BCBS, 2014b). They are deemed as one of the important mechanisms of control adopted by the company to inspect financial information quality (Fathi, 2013b).

Wallace (1980) argues that investors demand audited financial statements because these statements present information that helps them to make their investment decisions. Given the presence of information asymmetry and the possibility for conflicts of interest between the management and outside users of financial reports, an audit of

financial reports by a third party can improve the quality of the financial information prepared by company management (V. E. Johnson, Khurana, & Reynolds, 2002). As well as enhance the quality of information, that investors have, about the value of traded securities (Ronnen, 1996).

According to Fathi (2013b), an external auditing can significantly impact the amount of information disclosed. This is consistent with agency theory that suggests that the external audit function plays a vital role in mitigating the conflicts between management and shareholders (Jensen & Meckling, 1976; Xiao, Yang, & Chow, 2004), and signal theory that suggests that the choice of the external auditor is considered as a signal of the value of the company (Fathi, 2013b).

OECD (2015a, pp. 42–43) recommends that *"an annual audit should be conducted by an independent, competent and qualified, auditor in accordance with high-quality auditing standards in order to provide an external and objective assurance to the board and shareholders that the financial statements fairly represent the financial position and performance of the company in all material respects."*

BCBS (2002) considers that independent external audit with the other elements of the strong internal control are part of sound corporate governance which in turn can contribute to an efficient and collaborative working relationship between management and supervisors of the bank. In 2014, BCBS issued a document on external audits of banks to develop the external auditing quality of banks and improve the effectiveness of prudential supervision, which contribute to financial stability (BCBS, 2014b).

Accordingly, the auditing process is valued as a way of enhancing the quality of financial information; thus, external audit is expected to assist in developing corporate disclosures.

3.6. The Importance of Corporate Governance in the Banking Sector

The banking sector is critically important for industrial expansion, the corporate governance of companies (Levine, 2004), and capital allocation at the company level and at the country level (Caprio & Levine, 2002; Levine, 2004). Banks are responsible to their depositors besides their responsibilities to shareholders (BCBS, 2006). de Haan & Vlahu (2016) highlights the main differences between financial companies, notably banks, and nonfinancial companies and determines three features that make banks special: (i) regulation, (ii) the capital structure of banks (i.e., funding through deposits and high leverage), and (iii) the complexity and opacity of their business and structure. They mention that the traditional approach of corporate governance, which focuses on the interests of shareholders, is insufficient because it largely ignores these special banks characteristics. Ciancanelli & Gonzalez (2000) argue that a theory of corporate governance in banking sector requires consideration of the following matters:

- Regulation as an outside governance force separate and distinct from the market.
- The market regulation itself as a distinct and separate dimension of decision making inside banks.
- Regulation as constituting the existence of an extra interest external to and separate from the company's interest.

- Regulation as constituting an outer party that is in a risk sharing relationship with the individual bank company.

The quality of corporate governance creates a significant difference to the soundness and unsoundness of banks (Akingunola, Adekunle, & Adedipe, 2013). Feldioreanu & Seria (2015) point out that bad corporate governance, in the banking industry, can substantially reduce public’s confidence. This aspect can lead to a reduction in savings and in the level of profit, as well as, can influence the national economy as a whole (Onakoya, Ofoegbu, & Fasanya, 2012). Weak corporate governance may lead to bank failures; it can drive markets to lose confidence in the bank's ability to properly manage its assets and liabilities, including deposits, which may, in turn, trigger a bank run or a liquidity crisis (BCBS, 2006). The financial crises history shows that these crises are a direct result of lack of good corporate governance in banks; invariably the lack or inadequate practice of good corporate governance is one of the causes of instability in the banking industry (Akingunola et al., 2013).

In its report on enhancing corporate governance in banks, The BCBS (2006) emphasized that corporate governance in banks is important to the international financial system; and is needed to ensure a sound financial system and, consequently, a country's economic development. The committee also states that effective corporate governance practices are necessary to reaching and maintaining public trust and confidence in the banking system, which are important to the proper functioning of the banking sector and the economy as a whole.

Caprio & Levine (2002) try to explain why good corporate governance is important for the banking sector. They point out that corporate governance influences the

assessments of banks and their cost of capital, and thus the cost of capital of the companies to which they lend. They also argue that practicing sound corporate governance can reduce risks because corporate governance influences banks' risk-taking and the risks of financial crises, for both banks as individual and countries' whole banking systems. They furthermore mention that banks can reflect good corporate governance in companies that borrow from them, especially small companies that cannot directly access to financial markets. Arun & Turner (2004) discuss the importance of corporate governance in banks in developing economies. They mention that since the capital markets are underdeveloped or do not exist yet, banks are considered as the main source of financing because banks in developing countries allocate and mobilize community's savings, and hence can improve the economic growth of such countries.

3.7. An Overview of the Capital Markets Regulations and Corporate Governance Principles in Turkey

This section offers a general overview of the legal framework of the Capital Markets and corporate governance principles in Turkey.

3.7.1. The Legal Framework of the Turkish Capital Markets

There are two main legislations form the legal framework of the Turkish capital markets; the Capital Market Law (CML) and the Turkish Commercial Code (TCC) (Needles, Turel, Sengur, & Turel, 2012; Nilsson, 2007).

3.7.1.1. The Capital Market Law (CML)

The first issue of the Capital Market Law was in 1981 and then, on 30/12/2012, the Capital Markets Board (CMB) issued the New Capital Market Law[1]. This law is aimed to regulate and supervise the capital markets in Turkey in order to guarantee the function and development of capital markets in a secure, transparent, efficient, stable, fair and competitive environment and to keep the rights and benefits of investors (CMB, 2012). The preparation of the new law was in accordance with the European Union acquis. According to Turkish Capital Markets Association (TCMA), the law sets a new framework for financial markets with the purpose of fostering a more robust and well-functioning financial system while strengthening investor protection (TCMA, 2017). The new law identifies all subject to the provisions, including capital market instruments, public offerings and sales, issuers, exchanges and other organized markets, investment services, the structure of the Capital Markets Board and capital market institutions (CMB, 2012). The new Law also defines capital market activities and the kinds of organizations authorized to work in capital markets, and empowers the Capital Markets Board to set the requirements which must be fulfilled by those organizations (TCMA, 2017).

The New Capital Law is split into eight sections (CMB, 2012):

- **The first section**: General Provisions,
- **The second**: Principles Regarding the Issue of Capital Market Instruments, Public Disclosure and Issuers,
- **The third**: Capital Market Institutions and Activities,

[1] For more details about this law visit: <http://www.cmb.gov.tr/Sayfa/Index/1/1>.

- **The fourth**: Exchanges in Capital Markets Association of Capital Markets of Turkey and Other Institutions,
- **The fifth**: Supervision and Measures in Capital Markets,
- **The sixth**: Actions Requiring Administrative Fine and Capital Market Crimes,
- **The seventh**: Principles Regarding the Capital Markets Board, and
- **The last section**: Final and Transitional Provisions.

3.7.1.2. The Turkish Commercial Code (TCC):

The prior Turkish Commercial Code has been forced in 1957 and has been changed quite a lot since that day to comply with the demand of the community. This law became ineffective and does not meet current expectations of society because of rapid changes in commercial and social life (Sanver & Guven & Koyuncu Law Office, 2012). The New Turkish Commercial Code was published in the Official Gazette on 14 February 2011. PricewaterhouseCoopers International Limited (PwC) in Turkey points out that as stated in the Law No. 6102 and Law No. 6103 on the Validity and Application of the Turkish Commercial Code, the New Law became effective on 1 July 2012 (PwC Turkey, 2012).

The main purpose of this law is to harmonize the Turkish Commercial Code with European legislation system and to govern commercial relations in accordance with the recent changes in the local and international business environment (Needles et al., 2012). The Code essentially regulates commercial relations and the establishment and governance of corporations, as well as it cares about the social responsibility of the companies and takes corporate ethical standards into consideration. (Needles et al., 2012).

The predominant concept in the New Turkish Commercial Code is corporate governance. The code offers material provisions concerning good management and internal and external audit that must be practiced by all listed companies in the financial markets (PwC Turkey, 2012). The code regulates the responsibilities of the board of directors such as meetings, preparing the financial statements in conformity with the Turkish Financial Reporting Standards which are identical with International Financial Reporting Standards (IFRS). These financial statements must be audited by statutory auditors in accordance with the Turkish Auditing Standards which are identical with International Auditing Standards (ISAs). The code also requires each listed company to have a website which should include all the reports and all the relevant data concerning shareholders and stakeholders in order to enhance the transparency (Needles et al., 2012). The most critical issues related to corporate governance that regulated by the new code can be summarized as follows (PwC Turkey, 2012):

- The approach of corporate governance of the Code is based on four pillars that have global features within the context of corporate governance: full transparency, fairness, accountability and responsibility.
- Full transparency is required in: financial statements, annual reports of boards of directors, external audits, transactional auditors, and all audit reports of individual and groups of companies.
- Fairness is guaranteed by setting a balance of interests and by objective justice.
- Accountability is represented in the reports of boards of directors, flowing of information, right to information and supervision.
- Regulating responsibility in parallel with accountability.

- The shareholder rights to sue, get information and practice supervision are established along with smooth-running legal mechanisms.
- Expanding the minority rights list.
- Restricting privileged shares.
- Increasing the representation opportunities for a group of shareholders and the minority in the board of directors.
- The New Code provides the Capital Market Board of Turkey (CMB) an exclusive authority to regulate corporate governance and it will guarantee the Capital Market Board remains dynamic and up-to-date.
- The board of directors of publicly held companies is now forced to publish reports about corporate governance.
- Emphasizing on professionalism and specialization in bodies.

3.7.2. Corporate Governance Principles in Turkey

Article 1529 of The New Turkish Commercial Code provides the Capital Market Board of Turkey (CMB) an exclusive authority to regulate corporate governance and it will guarantee the Capital Market Board remains dynamic and up-to-date (PwC Turkey, 2012). The Capital Markets Board (CMB) was established in 1982 (TCMA, 2017). The function of the CMB is to set regulations and to perform supervision with the purpose of ensuring fairness, efficiency and transparency in Turkish capital markets, and improving their international competitiveness (Needles et al., 2012). In 2003, CMB issued corporate governance principles for listed companies in Turkey in order to improve the corporate governance regulations for such companies.

The CMB established a committee for issuing the corporate governance principles. These Principles have been issued as an outcome of the contributions of all high-level bodies, such as experts and representatives from the CMB, the Istanbul Securities Exchange, various professional organizations, and qualified academicians, that state their views and opinions, which were evaluated before addition to the principles (CMB, 2003). Comparing to developed countries, Turkish corporate governance system and linked reporting practice are in the developing stage. The principles were set mainly in line with the principles of the OECD, taking into consideration the particular circumstances of Turkey during the preparation phase of principles (Needles et al., 2012).

In 2005, CMB Corporate Governance Principles were revised parallel to OECD principles. The application of these principles is optional and companies should disclose the degree of compliance and describe the causes of some of the non-adopted principles. Companies should also disclose the implementation situation of the principles in Corporate Governance Compliance Report that should be included in the annual report as a separate part (Needles et al., 2012).

In fact, the Principles are divided into four main parts, namely shareholders, public disclosure and transparency, stakeholders and board of directors (CMB, 2003):

- **Shareholders**

  This part describes the principles of shareholders' rights and their equal treatment. The part includes, in detail, issues such as shareholders right of getting and assessing information, the right of participating in the general shareholders' meeting and right of voting, right of getting the dividend and minority rights. It also explains issues such as keeping records of shareholders and the free convey and sales of shares.

- **Public Disclosure and Transparency**

In this part, the discussion is about the principles concerning disclosure and transparency matters. Also, the part explains principles for the foundation of information policies in companies regarding shareholders and the adherence of companies to these policies. The current global financial economy situation and conditions faced in Turkey have been taken into consideration while setting single standards for the procedures for presenting information through the periodic financial reports and detailing such standards by consideration of functionality.

The main purpose of the principle of public disclosure and transparency is to provide shareholders and investors accurate, complete, comprehensible and easy-to-analyze information that is also available at a low cost and in a timely manner.

- **Stakeholders**

The third part mainly addresses the stakeholders' issues. It defines a stakeholder as any individual, organization or an interest group which is related to the goals and activities of a firm in any way. Stakeholders of a firm contain the firm's shareholders and its employees; creditors, customers, suppliers, unions various non-governmental institutions, the government and potential investors who may consider investing in the firm. This part also includes the principles for regulating the relationship between the firm and stakeholders.

This part focuses on the basic policies of the firm towards stakeholders. It stresses on the participation of stakeholders in the management of the firm and the protection of the firm's capital. It also discusses the possible recommendations about

presenting information to workers in related matters, and the relationships between the firm and stakeholders. The main objective of this principle is to assist the firm to be able to minimize any possible conflicts of interest that may occur between the firm's management and its stakeholders and within the stakeholders.

- **Board of Directors**

The last part contains principles regarding to the functions, duties, obligations, operations and structure of the board of directors; remuneration thereof, as well as the committees that should be established to assist the board activities and the executives. Under this part, it is recommended that the board of directors should be formed of two different kinds of members; executive and non-executive members. The board of directors, elected by the shareholders of the firm, is deemed to be the most senior executive body of the firm.

The board should fairly represent the firm within the framework of the related legislation, the articles of association and the in-house regulations and policies. The board of directors should act its functions in a rational manner and work according to the rules of good faith by maintaining the balance of interests among the firm's management and the shareholders and stakeholders.

CHAPTER 4: HYPOTHESES DEVELOPMENT AND RESEARCH METHODOLOGY

4.1. Introduction

This chapter discusses the research hypotheses and the research methodology, including, research philosophy, research approach, research design (methodological choice, research strategy, time horizon), and techniques and procedures (the population and sample, data collection method, research instruments, the construction of voluntary disclosure index, and measurements of research variables).

4.2. Research Hypotheses

The empirical study aims to investigate several internal mechanisms of corporate governance as possible determinants of voluntary disclosure in the annual reports of listed banks in Borsa Istanbul. Based on the previous studies, this study will focus primarily on identifiable and measurable corporate governance mechanisms to explain the extent to which banks disclose voluntary information more than others. For purposes of the empirical study, internal corporate governance mechanisms can be classified into the following three groups:

- **Board of Directors Characteristics:** board independence, board size, board meetings, and role duality.
- **Audit Committee Characteristics:** audit committee financial expertise, audit committee meetings, and audit committee size.
- **Ownership Structure**: institutional ownership and blockholder ownership.

4.2.1 Board of Directors Characteristics and Voluntary Disclosure

The board of directors is viewed as an effective and an important corporate governance mechanism (Man et al., 2013). The board of directors is responsible for disclosure through preparing and publishing the annual reports to the audience. Agency theory suggests that in order to protect the interests of shareholders, the board needs to be effective (Ramadhan, 2014). The board effectiveness is affected by some board characteristics such as composition, size, the duality of (CEO) and board diversity (Brennan, 2006). Hence, characteristics of the board are expected to affect voluntary disclosure decisions. The characteristics that investigated in this study are: board independence, board size, board meetings, and role duality.

4.2.1.1. Board Independence and Voluntary Disclosure

When the number and percentage of independent directors reach to a particular grade, independent directors system can play several positive roles such as improving the scientific, efficiency, safety of the corporate decision-making process, strengthening the competitiveness of the firm, and prevent the president and other internal controllers in the company doing whatever they want (Zhang, Li, & Zhang, 2011). There are various researchers around the world who examined the relationship between the board independence and the level of voluntary disclosure.

The findings of prior studies are not consistent in relation to the relationship between the percentage of independent directors and the voluntary disclosure level. Several studies found a positive significant relationship between the two variables (Akhtaruddin, Hossain, Hossain, & Yao, 2009; Babío Arcay & Muiño Vázquez, 2005; Cerbioni & Parbonetti, 2007; Cheng & Courtenay, 2006; Donnelly & Mulcahy, 2008;

Gisbert & Navallas, 2013; Grassa & Chakroun, 2016; Huafang & Jianguo, 2007; Uyar et al., 2013) and some studies found a negative relationship (Abeywardana & Panditharathna, 2016; Eng & Mak, 2003; Habbash, Hussainey, & Awad, 2016; Matoussi & Chakroun, 2009; Rouf, 2011), and others found no significant relationship (Al-Najjar & Abed, 2014; Allegrini & Greco, 2013; Hieu & Lan, 2015; Khodadadi, Khazami, & Aflatooni, 2010; Zhang et al., 2011).

Accordingly, it is expected that board independence will improve voluntary disclosure as predicted by agency theory. Hence, the hypothesis is formulated as follows:

H1: The level of voluntary disclosure is positively associated with the proportion of independent directors on the board.

4.2.1.2. Board Size and Voluntary Disclosure

The optimum size of the board of directors is a critical issue for any company. The big size is difficult to coordinate; the small is a favorable field of coordination, but, its members may suffer from a lack of experience and competence (Matoussi & Chakroun, 2009). There is no superiority of theory or empirical evidence to propose a relation between board size and voluntary disclosure levels, and it is still an empirical issue (Cheng & Courtenay, 2006). However, Yermack (1996) discusses that the large number of directors help to increase the expertise in the company which may lead to improving the quality of the disclosure. Some former empirical studies found that companies which have large board size were more likely to disclose voluntarily more information compared to companies with small boards (Akhtaruddin et al., 2009; Allegrini & Greco, 2013; Htay, 2012; Rouf, 2011). Based on the results of these studies, the hypothesis is developed as follows:

H2: The level of voluntary disclosure is positively associated with the number of the board of directors.

4.2.1.3. Board Meetings and Voluntary Disclosure

According to agency theory, the board meetings frequency impact the strength of the component of corporate governance (Khanchel, 2007). Man et al. (2013) indicate that the number of board meetings is a good proxy to assess the effectiveness of board performance and internal corporate governance. Meeting frequency represents the board activity which affects the ability of the board to work as an effective monitoring mechanism in mitigating agency conflicts (Xie et al., 2003). It is expected that increasing in monitoring lead to decreasing information asymmetry and lower agency costs, thereby increasing disclosures (Nelson et al., 2010)

Empirically, there is not enough evidence about the nature of the relationship between voluntary disclosure and board meetings. For example, Allegrini & Greco (2013) found that the meeting frequency has a significant positive relationship with the level of voluntary disclosure. Whereas, the study of Albawwat & Basah (2015) shows that the frequency of board meetings has an insignificant impact on voluntary disclosure of interim financial reporting in Jordan.

Therefore, based on the above discussion, this study expects that voluntary disclosure is to be associated positively with the number of board meetings. Hence, the study hypothesized that:

H3: The level of voluntary disclosure is positively associated with the number of board meetings.

4.2.1.4. Role Duality and Voluntary Disclosure

Agency theory supposes that role duality decreases the directors' ability to supervise CEO that rises agency problems and influences board independence (R. M. Haniffa & Cooke, 2002). Hence, the separation between CEO and chairman is necessary for enabling the board to put the CEO and management under the pressure of disclosing more information that is consistent with the shareholders' interests (Ramadhan, 2014).

Some empirical studies found that there is a significant negative relationship between role duality and voluntary disclosure (Allegrini & Greco, 2013; Forker, 1992; Gisbert & Navallas, 2013; Gul & Leung, 2004; Huafang & Jianguo, 2007; Samaha, Khlif, & Hussainey, 2015).

Results of other studies show that role duality is not significantly associated with voluntary disclosure (Al-Shammari & Al-Sultan, 2010; Cheng & Courtenay, 2006; R. M. Haniffa & Cooke, 2002; Hieu & Lan, 2015; Khodadadi et al., 2010; Ramadhan, 2014; Yuen et al., 2009).

Based on agency theory that assumes that role duality decreases the ability of directors to monitor CEO, the hypothesis is formulated as follows:

H4: The level of voluntary disclosure is negatively associated with role duality.

4.2.2. Audit Committee Characteristics and Voluntary Disclosure

The audit committee has an important role in assisting the board of directors to supervise corporate reporting policy (Pincus, Rusbarsky, & Wong, 1989). The audit committee has a crucial role in satisfying investors' needs for clear, relevant, and

complete information (Babío Arcay & Muiño Vázquez, 2005; Khlif & Samaha, 2014; Samaha, Dahawy, Abdel-Meguid, & Abdallah, 2012). Also, the audit committee, as a monitoring mechanism over top management, guarantees that the increase of voluntary disclosure for enabling an accurate evaluation of decisions and behaviors of top management (Allegrini & Greco, 2013). Ho & Wong (2001), Barako et al. (2006), Al-Shammari & Al-Sultan (2010) and Rouf (2011) fund that the existence of audit committee is significantly and positively related to the extent of voluntary disclosure. Accordingly, it is expected that audit committee can improve corporate disclosure. Hence, characteristics of audit committee are expected to influence voluntary disclosure. The characteristics that examined in this study are: audit committee financial expertise, audit committee meetings, and audit committee size.

4.2.2.1. Audit Committee Financial Expertise and Voluntary Disclosure

Financial expertise indicates that audit committee members should have knowledge and experience in accounting and finance (Bajra & Čadež, 2018). Basel committee recommended that the members of the audit committee should have experience in audit practices, financial reporting, and accounting (BCBS, 2015). According to Turkish corporate governance, the audit committee is responsible for supervising the execution and efficiency of the accounting system of the firm, the disclosure of financial information to the public, external audit of the company and internal control system thereof (CMB, 2003). Therefore, the members of audit committee -at least one- should have an expertise in accounting or finance to be able to understand and interpret financial information.

Kumar (2015) states that the effectiveness of audit committee is based on the characteristics of financial expertise. Defond, Hann, & Xuesong (2005) imply that firms would enhance their corporate governance if the audit committee members have financial expertise in discharging their duties. Financial expertise assists the members to determine and ask knowledgeable questions that challenge management and external audit to a greater level of financial reporting quality (Bédard & Gendron, 2010). This may lead to improve transparency of corporate reporting and therefore decrease agency problem related to the flow of information (Madi, Ishak, & Manaf, 2014).

Prior studies have found a positive relationship between audit committee financial expertise and financial reporting quality (Kelton & Yang, 2008; Kent, Routledge, & Stewart, 2010), and the extent of voluntary disclosure (Akhtaruddin & Haron, 2010; Johl, Jackling, & Kothalawala, 2011). Therefore, based on the above discussion, the hypothesis is as stated below:

H5: The level of voluntary disclosure is positively associated with audit committee financial expertise.

4.2.2.2. Audit Committee Meetings and Voluntary Disclosure

One of the primary responsibilities of the audit committee is to oversee the financial reporting process (Bédard & Gendron, 2010). Besides the meetings held by the whole board, the number of audit committee meetings provides an additional signal of how regularly the committee attended to improve the financial disclosure and other vital issues. Greco (2011) argued that the frequency of audit committee meetings can enable the members to express judgment about the company's accounting choice of principles, disclosures and estimates. The regularity of the meetings is considered as a powerful

control of the disclosure of information (Allegrini & Greco, 2013; Karamanou & Vafeas, 2005).

Empirically, Allegrini & Greco (2013) found that the regularity of the audit committee meetings is positively associated with the amount of information voluntarily disclosed. Kelton & Yang (2008) found a strong evidence that the audit committee meetings are positive and statistically significant for the Internet financial disclosures. Persons (2009) found that the more meetings of the audit committee, the more details a company likely made in its earlier voluntary ethics disclosure. Jizi, Salama, Dixon, & Stratling (2013) concluded that audit committee meeting frequency is statistically and positively related to voluntary corporate social responsibility disclosure. Li, Pike, & Haniffa (2008) found that a positive association exists between the audit committee meetings frequency and the level of intellectual capital disclosure.

However, the study of Madi et al. (2014) shows that the audit committee meetings frequency is not significantly related to corporate voluntary disclosure. The results of the study of Cormier, Ledoux, Magnan, & Aerts (2010) do not show any relationship between audit committee meetings and corporate governance disclosure. Othman et al. (2014) concluded that the audit committee meetings frequency does not impact on the voluntary ethics disclosure. Also, the findings of the study of Chobpichien et al. (2017) do not show any influence of the quality of audit committee meetings on the voluntary disclosure index.

Li et al. (2008) suggest that audit committee activity is an important factor in observing management behavior with regard to decreasing information asymmetry. Empirical studies provide evidence to support the view that an audit committee that meets

more often is more effective in observing management and would likely request management to disclose more information voluntarily (Persons, 2009). Accordingly, the hypothesis is formulated as follows:

H6: The level of voluntary disclosure is positively associated with the number of audit committee meetings.

4.2.2.3. Audit Committee Size and Voluntary Disclosure

Audit committee size refers to the total number of audit committee members. Cormier et al. (2010) concluded that audit committee size is one of some factors reducing information asymmetry. The results of previous studies of the effect of audit committee size on voluntary disclosure are mixed and inconclusive. Akhtaruddin & Abdur Rauf (2012) found that there is a positive relationship between audit committee size and voluntary disclosure. Madi et al. (2014) reported that the size of the audit committee is positively and significantly associated with corporate voluntary disclosure at the level of 1%. The conclusion of the study of Persons (2009) showed that audit committee size of more than three directors is conducive to earlier voluntary disclosure. Abdullah, Percy, & Stewart (2015) found that audit committee size has a highly significant and positive association with voluntary corporate governance disclosures.

On the other hand, Akhtaruddin et al. (2009) indicated that the size of the audit committee does not influence the level of voluntary disclosure. The study of Ramadhan (2014) indicated that there is no association between audit committee size the extent of voluntary disclosure. Also, Othman et al. (2014) found that there is no significant positive relationship between audit committee size and voluntary ethics disclosure.

It is expected that the size of the audit committee is positively associated with the level of disclosure which will lead to enhance the quality of information disclosed. Therefore, the following hypothesis is proposed:

H7: The level of voluntary disclosure is positively associated with the number of members of the audit committee.

4.2.3. Ownership Structure and Voluntary Disclosure

Ownership structure is considered as a mechanism that aligns the interest of shareholders and managers (Chau & Gray, 2002; Eng & Mak, 2003; R. M. Haniffa & Cooke, 2002) Agency theory proposes that where there is an isolation between ownership and control of a company, the potential for agency costs rises because of conflicts of interests between contracting parties. By voluntary disclosure, managers present more information to indicate that they act in the best interests of shareholders (Rouf & Harun, 2011). Ownership structure is also deemed as one of the factors influencing the quality of the financial reporting process (Alhazaimeh et al., 2014). Eng & Mak (2003) stated that the ownership structure determines the level of overseeing, and thereby the level of disclosure. This study examines the relationship between two attributes of ownership structure, including institutional ownership and blockholder ownership, and voluntary disclosure

4.2.3.1. Institutional Ownership and Voluntary Disclosure

Institutional ownership is considered as an important mechanism in improving corporate disclosures (David & Kochhar, 1996). According to agency theory, companies with higher institutional ownership structure may disclose more information to

shareholders through voluntary disclosure (Hieu & Huong Lan, 2015). Xiao et al. (2004) state that, since institutional investors request transparent disclosure, institutional ownership has a positive impact on the level of Internet-based disclosure. Bogdan, Popa, Pop, & Farcane (2009) found that companies with a higher proportion of institutional ownership have a high level of voluntary disclosure. The same results were found by Rouf & Harun (2011) and Khlif, Ahmed, & Souissi (2016).

Therefore, it can be concluded that there exists a positive association between institutional ownership and voluntary disclosure. Thus, the hypothesis is formulated as follows:

H8: The level of voluntary disclosure is positively associated with the proportion of institutional ownership.

4.2.3.2. Blockholder Ownership and Voluntary Disclosure

The owner of a large block of a company's shares and/or bonds is called a blockholder. This means that a small group of people control the shares, thus ownership is concentrated (Juhmani, 2013). These owners often have an ability to impact the company with the voting rights awarded with their holdings. Companies with concentered ownership have fewer agency costs rising from conflicts between shareholders and managers (Al-Najjar & Abed, 2014). Cahan & Hossain (1996) emphasized that the high block shareholdings leads to low agency cost of companies and, in turn, these companies have less motivation to provide additional information which may increase disseminating and proprietary costs. That is, a large blockholder would be foreseen to motivate directors to disclose extra information to raise prices of shares, improve the firm value and decrease agency costs entailed in overseeing the activities (Huddart, 1993)

In previous studies, the results of the relationship between blockholder ownership and voluntary disclosure were mixed. Huafang & Jianguo (2007) found that higher blockholder ownership is associated with increased voluntary disclosure. In contrast, the results of the studies of Al-Najjar & Abed (2014) showed that there is a negative and significant relationship between the level of voluntary disclosure of forward-looking information and blockholder ownership. The studies of McKinnon & Dalimunthe (1993), Mitchell, Chia, & Andrew (1995) and Juhmani (2013) found the same results. Whilst, Eng & Mak (2003) concluded that blockholder ownership is not related to voluntary disclosure. Therefore, in this study, it is hypothesized that:

H9: The level of voluntary disclosure is negatively associated with blockholder ownership.

4.3. Research Methodology

It is necessary for the researcher to know not only the research methods/techniques but also the methodology. It seems appropriate to distinguish between 'methods' and 'methodologies' in research because the two are so usually confused or else used interchangeably. Research methods are employed by the researcher during the process of studying the research problem (Kothari, 2004). Methods refer to techniques and procedures utilized to collect and analyze data such as questionnaires, observation, interviews and both quantitative and qualitative analyses techniques (Saunders, Lewis, & Thornhill, 2016). In other words, the research method is concerned with the technical matters linked to the conduct of research (Smith, 2003). According to Kothari (2004), research methods can be put into the following three groups:

1. The first group contains methods that interested in the collection of data;
2. The second composed of statistical techniques that applied for establishing associations between the data and the unknowns;
3. The last group includes methods that are adopted to assess the accuracy of the obtained outcomes.

Research methodology is concerned with the philosophies related to the choice of research method (Smith, 2003). Research methodology may be understood as a science of studying how research is accomplished scientifically. It is a way to solve the research problem systematically. In it, the researcher studies the diverse stages that he\her generally adopted in studying the research problem along with the logic behind them (Kothari, 2004). Jankowicz (2006, p. 16) defines the methodology as *"not a list of methods and techniques, but a careful and explicit account that argues for the suitability of the research approach taken: the research design, methods and techniques adopted."* According to Saunders et al. (2016, p. 720) the methodology is *"the theory of how research should be undertaken, including the theoretical and philosophical assumptions upon which research is based and the implications of these for the method or methods adopted."*

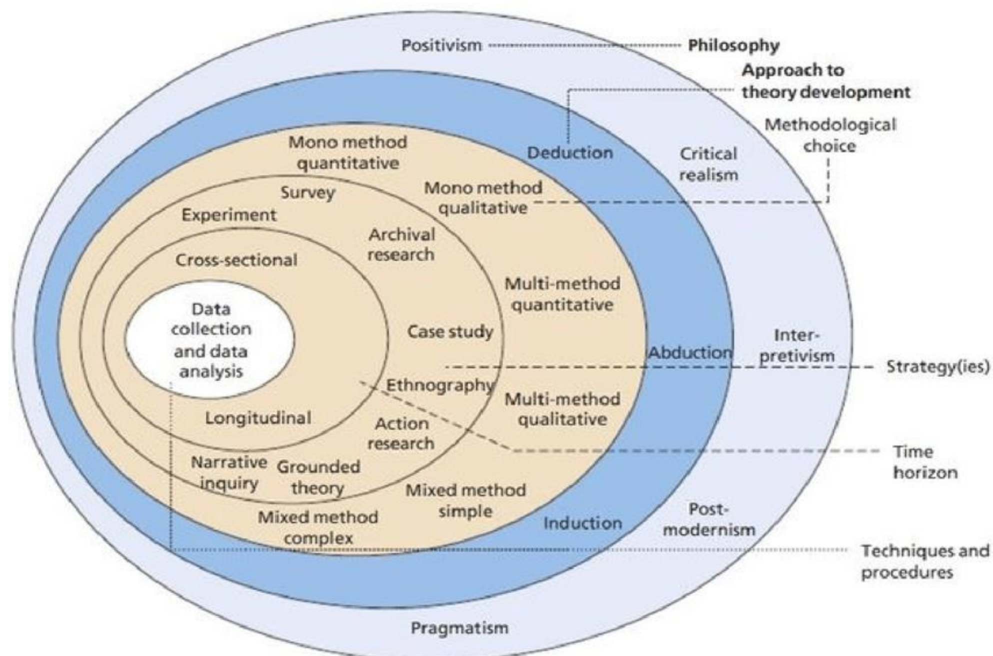
Saunders et al. (2016) introduce the 'research onion' as a way of describing the issues underlying the methodology and methods. They outline six layers of the research onion represent the research process, including research philosophy, approach to theory development, methodological choice, research strategy or strategies, choosing the time horizon, and techniques and procedures (Figure 4.1)

In summary, it can be said that the research methodology has many dimensions and research methods form a portion of the research methodology. The range of research methodology is broader than that of research methods (Kothari, 2004).

4.3.1. Research Philosophy

According to Saunders et al. (2016, p. 124), the term research philosophies *"refers to a system of beliefs and assumptions about the development of knowledge"*. This means that the research philosophy includes important assumptions about the way in which the researcher views the world. These assumptions form all aspects of his or her research projects. Saunders et al. (2016) outline five major philosophies in management and business researches: positivism, critical realism, interpretivism, postmodernism, and pragmatism (see figure 4.1):

Figure 4.1: The research 'onion'



Source: (Saunders et al., 2016, p. 124).

- **Positivism:** A positivist approach is usually related to natural science research and includes empirical testing (Robson & McCartan, 2016). Positivism states that only phenomena which can be known through the senses (sight, smell, hearing, touch, taste) can really produce "knowledge" (Greener, 2008).
- **Critical Realism:** A school of philosophy combining the belief in an external reality with the refusal of claims that this external reality can be objectively measured. The critical realist is critical of the ability to understand the world with certainty. (Sekaran & Bougie, 2016).
- **Interpretivism:** The viewpoint that admits the 'embedded' nature of the researcher, and the individual personal theoretical attitudes upon which each person bases his/her behaviors. It refuses the affirmation that human behavior can be codified in laws via distinguishing underlying regularities, and that community can be examined from a detached, objective and impartial standpoint by the researcher (Walliman, 2011).
- **Postmodernism:** It stresses the world-making role of language and power relationships. Postmodernists try to question the accepted ways of thinking and provide a voice to alternative worldviews that have been marginalized and silenced by dominant viewpoints. Postmodernists deconstruct data to show the instabilities and absences within them (Saunders et al., 2016).
- **Pragmatism:** In the general use of the word, pragmatic refers to a concern for practical matters; being guided by practical experience instead of theory (Robson & McCartan, 2016). Pragmatists utilize a broad range of research strategies, the selection of which is driven by the particular nature of their research problems (Saunders et al., 2016). Pragmatism defines research as a process where concepts

and meanings (theory) are generalizations of the past actions and experiences, and of interactions with the environment. Pragmatists emphasize that the theory is derived from practice and then applied back to practice to obtain intelligent practice (Sekaran & Bougie, 2016).

Since the current study is about the phenomena under examination of the relationship between voluntary disclosure and corporate governance and the data is collected through quantitative measurement from annual reports of listed banks in Borsa Istanbul, the current study is adopted the positivist research philosophy. It supports the idea of experimentation and examining to prove or disprove hypotheses (deductive) (Greener, 2008), and depends on the hypothetic-deductive method of conducting the study (i.e. deductive approach), identifying causal effects, testing the pre-existing theory. In this philosophy, science is mainly based on quantitative data and all scientific propositions are founded on facts. Hypotheses are tested against these facts (Robson & McCartan, 2016). The main method which is suitable to the positivist philosophy is database surveys based on analysis of published sources that will be utilized by this research.

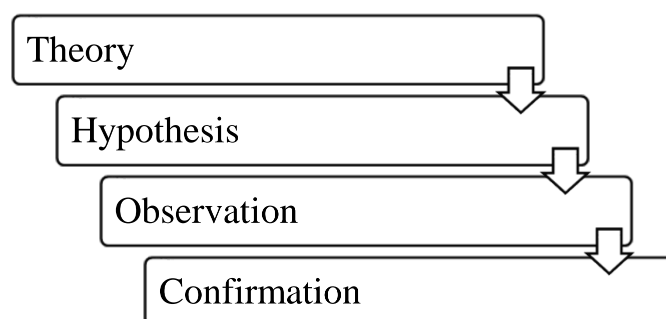
4.3.2. Research Approach

There are two main research approaches deductive approach and inductive (Saunders, Lewis, & Tornhill, 2007). The process of deduction or the process of induction, or a mixture of the two are used by researchers to find answers to issues (Sekaran, 2003). Deduction is defined by Sekaran (2003, p. 27) as *"the process by which we arrive at a reasoned conclusion by logical generalization of a known fact."* According to Collins & Hussay (2003, p. 15),*"Deductive research is a study in which a conceptual*

and theoretical structure is developed and then tested by empirical observation; thus particular instances are deduced from general inferences." The deductive approach starts with general statements and, through a logical reasoning, gets a specific outcome (Walliman, 2011)

The deductive approach involves a theory development that is subjected to a rigorous test (Saunders et al., 2007). It investigates a known phenomenon based on testing a theory, so it is not dependent on existing practice like inductive approach (Elliott & Elliott, 2017). To apply this approach, Trochim & Donnelly (2006) define some steps that begin with thinking up a theory about the topic of interest and then narrowing that down into more specific hypotheses which can be tested, after that narrowing down by collecting observations to address the hypotheses. Eventually, testing the hypotheses with specific data and then confirmation (or not) of the original theories. The deductive approach tends to be preferred by positivist researchers. In general, this approach works from the more general to the more specific and it is informally called a "top-down" approach. The deductive approach is referred as moving from the general to the particular (see Figure 4.2).

Figure 4.2: A schematic representation of the deductive approach

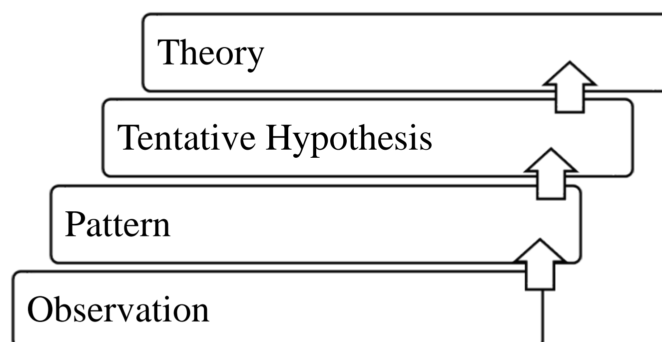


Source: (Trochim & Donnelly, 2006, p. 17).

In contrast, the inductive approach is the reverse of the deductive approach. Induction is defined as *"a process where we observe certain phenomena and on this basis arrive at conclusions."* (Sekaran, 2003, p. 27). Collins & Hussay (2003, p. 15) define the inductive approach as *"a study in which theory is developed from the observation of empirical reality; thus general inferences are induced from particular instances."* Informally, it is sometimes named a "bottom up" approach.

Induction is a process where particular phenomena are observed and, on this basis, arriving at conclusions (Sekaran, 2003). In other words, in induction, a general proposition is logically established from observed facts. It is referred as moving from the specific to the general because it means moving from a single observation to general statements of patterns or laws (Collins & Hussay, 2003). According to Trochim & Donnelly (2006), in the inductive approach, the researcher starts with specific observations and measures, starts detecting patterns and regularities, formulates some temporary hypotheses that can be examined, and leads to develop some general inferences or theories (see Figure 4.3).

Figure 4.3: A schematic representation of the inductive approach



Source: (Trochim & Donnelly, 2006, p. 18).

Generally, the adoption of a research approach depends upon the research questions, objectives and the nature of the examination regarding to the concentration of the research. Since this study aims to investigate the significant association between the voluntary disclosure level in annual reports (dependent variable) and internal corporate governance mechanisms (independent variables) by developing hypotheses and gathering evidence to examine expectations and test the hypotheses, it, therefore, adopts the deductive approach that is deemed appropriate for examining such causal relations.

4.3.3. Research Design

Research design represents the problem that comes after the task of determining the research problem. It constitutes the decisions with regard to what, where, when, how much, by what means regarding an inquiry or a research study (Kothari, 2004). Kumar (2011, p. 94) defines the research design as "*a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems."* Gray, Williamson, Karp, & Dalphin (2007, p. 34) define the research design as *"the overall process of using your imagination as well as the strategy and tactics of science to guide the collection and analysis of data."* Kothari (2004) views that the research design is the conceptual structure in which research is carried out; it represents the plan for how to collect, measure and analyze the data. He points out that the research design involves a framework of what the researcher will work from formulating the hypotheses and their operational implications to the last analysis of data. Saunders et al. (2016) view that the research design is the general plan of how answering the research question(s).

There is a need for research design because it simplifies the different research stages and doing the research as efficient as possible producing maximal information with

minimal cost in time, effort, and money (Kothari, 2004). Cooper & Schindler (2014) outline five main fundamentals of research design:

- A plan based on activity and time.
- A plan based upon the research questions.
- A guidance for choosing sources and kinds of information.
- An outline for defining the associations between the research's variables.
- A procedural construction for all research steps.

There are various kinds of research design that have a range of research methods that are generally applied to gather and analyze the kind of data. The decision of choosing the suitable research design depends upon the nature of the problem posed by the research objectives (Walliman, 2011). In the general case, Kothari (2004) mentions that the appropriate research design generally involves the following considerations:

- The instruments of getting the information;
- Any availability and skillfulness of the researcher and his team;
- Description of the approach in which chosen instruments of getting information will be arranged and the logic leading to the choice;
- The available time for the research; and
- The costs factor associating with the research.

According to Saunders et al. (2016), the way of answering the research question is affected by the research philosophy and approach to theory development. They discuss that the research philosophy and approach to theory development, whether this is deliberate or by default, are subsequently impact on the selections the next three layers of

the research onion (methodological choice, research strategy and the time horizon) (Figure 4.1). They indicate that these three levels can be considered of as concentrating on the process of research design, that turns the research question into a research project. The key to these selections is to reach coherence all the way through the research design.

4.3.3.1. Methodological Choice

The first methodological choice is whether the researcher follows a quantitative, qualitative or mixed methods research design (Saunders et al., 2016). Quantitative research commonly depends on the collection of data in numerical form, whereas in qualitative research data are generally non-numerical, often in the form of words (Robson & McCartan, 2016).

The quantitative method is usually associated with positivism philosophy (Bryman, 1989; Robson & McCartan, 2016) and a deductive approach (Saunders et al., 2016). Trochim & Donnelly, (2006) and Saunders et al. (2016) argue that lots of quantitative research tends to be confirmatory and deductive, but also a lot of quantitative research can be categorized as exploratory as well; and while much qualitative research tends to be exploratory, it can also be used to confirm particular deductive hypotheses. Quantitative method is used (i.e., numerical systems) to study the relationships or impacts of specific variables. These variables must be conceptually defined and based on this conceptual definition the appropriate measurement tool will be determined (Edmonds & Kennedy, 2017), and then the data will be analyzed using a set of statistical and graphical techniques (Saunders et al., 2016).

Based on the discussion above, the quantitative method is adopted in the current study where this method is deemed appropriate for implementation to the certain kind of

research questions. It will also assist the study to present strong proof for a conclusion by validation of outcomes. Since the current research aims to investigate and measure quantitatively the relationship between internal corporate governance mechanisms and the level of voluntary disclosure, this method was applied to test this relationship using analysis of data. The quantitative approach involves the generation of data in a quantitative method which can be subjected to rigorous quantitative analysis in a formal and rigid fashion (Kothari, 2004). In addition, the quantitative method is widely employed in the disclosure and corporate governance literature.

4.3.3.2. Research Strategy

In general, the strategy is a plan of work to reach a goal. The research strategy is defined by Saunders et al. (2016, p. 177) *"as a plan of how a researcher will go about answering her or his research question."* Also, they outline the main research strategies as: (a) Experiment; (b) Survey; (c) Archival and Documentary Research; (d) Case Study; (e) Ethnography; (f) Action Research; (g) Grounded Theory; (h) Narrative Inquiry (Saunders et al., 2016). The first three strategies are generally related to the deductive approach, whereas the rest are usually related to the inductive approach.

Since the source of data is the annual reports and websites of listed banks in Borsa Istanbul, and since the annual reports, company disclosures and internet databases (online data archives) are deemed as historical documents (Saunders et al., 2016; Smith, 2003), the archival and documentary research was adopted in this study. In the archival research, the administrative records, existing documents, statistical sources, and other media are used as the main source of data. Although the term "archival" has historical connotations, it can indicate to current documents as well (Bryman, 1989). The archival research is truly

non-reactive, that is, studying archival records where people can't change their behavior after the fact. The original data might have been gathered reactively and inexpensively, that are reasons why such critical examination of sources are demanded (Bernard, 2006).

4.3.3.3. Time Horizon of The Research

It is known that most research projects undertaken for academic courses are necessarily time constrained. Choosing time horizon depends on the research question, either it is at a particular time "snapshot", or it is more akin to a diary or a series of snapshots and be a representation of events over a given period (Saunders et al., 2016):

- **Cross-sectional studies:** The cross-sectional research involving the study of a particular phenomenon (or phenomena) at a particular time. Cross-sectional researches usually use the survey strategy. They may be trying to describe the occurrence of a phenomenon or to illustrate how factors are linked to different organizations. However, they may also apply qualitative or mixed methods research.
- **Longitudinal studies:** The main strength of the longitudinal studies is their ability to examine changes and developments. This type of study may provide a measure of control over some of the variables being studied.

To achieve the objectives of this study, the data is gathered across a number of years. Therefore, this study is deemed a longitudinal study because it examines the voluntary disclosure level in the annual reports of listed banks in Borsa Istanbul during a period of five years, from 2013 to 2017.

4.3.4. Techniques and Procedures

This subsection presents the major research techniques and procedures applied in the current study. It contains a description of the content analysis technique that adopted in this study. It describes the population of the study and explains the data collection methods. It also describes the research method to measure the voluntary disclosure level in the annual reports (dependent variable), and corporate governance mechanisms (independent variables) for each year of each single bank. The measurement of voluntary disclosure is also explained in this subsection including a process with two steps: structuring the voluntary disclosure index and scoring the voluntary disclosure items.

4.3.4.1. Content Analysis

Content analysis is a research technique that is used in different academic fields, and especially in the social sciences (Lock & Seele, 2015). It is mainly linked with the positivist philosophy (Collins & Hussay, 2003). Theoretically, content analysis can be either deductive or inductive (Gray et al., 2007). The content analysis technique has been applied in mass communication and in other fields to depict the content and to test theory-derived hypotheses (Riffe, Lacy, & Fico, 2014). In the last decades, content analysis became increasingly accepted in the scientific world, and nowadays some authors call it the research technique in communication and media science (Lock & Seele, 2015). Content analysis can be applied to analyze written, audio, or video data from experiments, observations, surveys, and secondary data studies (Cooper & Schindler, 2014). It has traditionally been utilized for the analysis of archival data (Steenkamp & Northcott, 2007). In the early phases, content analysis has been applied as a quantitative research method. Nowadays, it is being used as quantitative, qualitative research methods or both (Kothari, 2004; Smith, 2003). Content analysis may prove to be the main technique when

used documentary sources, but a secondary method when used qualitative data (Saunders et al., 2016).

Content analysis refers to a systematic technique for classifying and analyzing the content of texts. Content analysis has been defined in various ways. Weber (1990, p. 9) defines it as *“a research method that uses a set of procedures to make valid inferences from text.”* It is also defined by Krippendorff (2004, p. 18) as *“a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use.”* According to Riffe et al. (2014, p. 19), quantitative content analysis is *“the systematic and replicable examination of symbols of communication, which have been assigned numeric values according to valid measurement rules, and the analysis of relationships involving those values using statistical methods, to describe the communication, draw inferences about its meaning, or infer from the communication to its context, both of production and consumption.”* This definition stipulates more that measurement is used: Quantitative content analysis includes numeric values assigned to represent measured differences.

The main advantages of the content analysis technique are reliability, systematicity, objectivity, external validity and the volume of data (Krippendorff, 2004). Content analysis is an extremely wide area of research. It involves three types of analysis: a thematic analysis of the text, indexing and quantitative descriptive analysis (Trochim & Donnelly, 2006). Adams, Khan, Raeside, & White (2007) identify six main steps in the content analysis:

1. **Identify the Unit of Analysis:** It is usually either an individual or a company, it may also be more general such as geographic region or country.

2. **Choose a Set of Categories:** If categories are chosen from a pre-existing theory or rationale, it is necessary, before using them to classify the data, to make a brief, explicit list (checklist) of the defining characteristics of each category.
3. **Coding:** Read within the material and, inside each context unit, specify each assertion in one of the categories; within a context unit, there may be more than one assertion.
4. **Tabulate the Material:** Calculate the number of assertions in each category and display the material as a table.
5. **Illustrate the Material:** Display the categories and list all the assertions under them or a representative set. It is very important to illustrate and construct schematic diagrams to indicate the relationships between factors and the direction of impact
6. **Draw Conclusions from the Tabulations and Diagram:** Produce results as to the nature of impacts between factors in the data; from views on how one factor may affect another and understand the complexity of the problem.

In accounting literature, content analysis is a widely applied to all kinds of financial disclosure (Lock & Seele, 2015). A number of authors have used content analysis as a technique to investigate the level of disclosure in the annual reports, see for example (Albassam, 2014; Allegrini & Greco, 2013; Alotaibi, 2014; Alves, 2011; Bischof & Daske, 2013; Consoni & Colauto, 2016; Depoers, 2000; Derouiche, Jaafar, & Zemzem, 2016; Elfeky & Nasiri, 2017; Habbash et al., 2016; Hawashe, 2014; Liao, 2011; Matoussi & Chakroun, 2009; Neifar & Jarboui, 2017; Ramadhan, 2014; Satta, Parola, Profumo, & Penco, 2015; Scaltrito, 2016; Sukthomya, 2011; Uyar et al., 2013; Yilmaz, Gumus, & Aslanertik, 2017).

This study used the content analysis technique for the following reasons:

- This study is deemed as an archival and documentary research which uses the annual reports and websites of listed banks in Borsa Istanbul as the source of data.
- The content analysis is a research technique in communication and media, and the annual reports and websites of these banks are considered as the most important tool for communication between the firm management and all interested audience.
- Typically, quantitative methods have been employed for archival data (Smith, 2003).
- Combining content analysis and documentary research can provide a means to conduct a longitudinal study relatively easily where this is suitable for the research question and where appropriate documentary sources are readily available (Saunders et al., 2016).
- Content analysis can be used to investigate relations between variables in the data (Saunders et al., 2016)

4.3.4.2. Disclosure Index

Index procedure is based upon the general principles of the content (or thematic) analysis that is a constructed technique in the social sciences. Disclosure index studies are considered as a partial kind of content analysis (Beattie, McInnes, & Fearnley, 2004). According to Cooke & Wallace (1989) financial disclosure is considered to be an abstract concept that cannot directly be measured. The disclosure indices are used to measure, evaluate, compare and explain differences in the extent and comprehensiveness of disclosure in the annual reports (Guthrie & Abeysekera, 2006).

Using disclosure index is a common method to obtain a proxy measurement for disclosure. It has been widely used for measuring the level of both mandatory and voluntary information (Urquiza, Navarro, & Trombetta, 2009). Disclosure index is an extensive list of selected items that foreseen to be disclosed in the companies' annual reports (Marston & Shrives, 1991).

An essential point in using the disclosure indices is whether values are attached to each item in the index. Prior studies have used two scoring approaches: weighted and unweighted index (Uyar et al., 2013). Authors who used weighted score wanted to underline the importance of certain items of disclosure related to others (Scaltrito, 2016). It allows them to make distinctions for the relative importance of disclosed information items to the users (Inchausti, 1997). The weighted disclosure index involves the application of weights above zero but less than one, to items of disclosed information (zero is the weight for non- disclosure) (Hossain & Hammami, 2009).

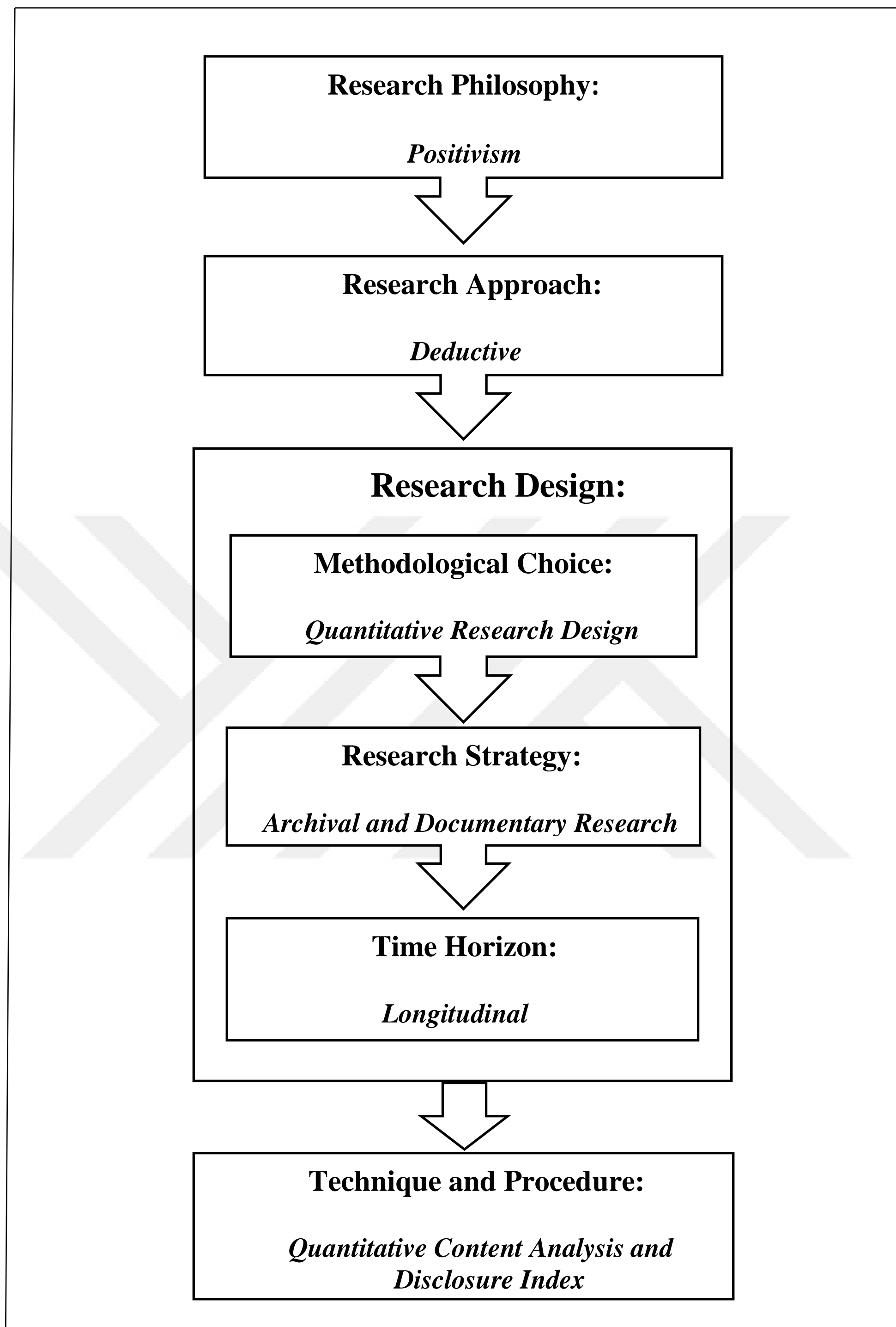
In contrast, an unweighted index score is formed by considering all observed items to be equally important in conducting the study (Scaltrito, 2016). The unweighted approach is a dichotomous procedure that scores the item one if disclosed and zero if not disclosed (Hossain & Hammami, 2009). This approach assumes that all the items have the same informational interest and does not reflect the relative importance of each item (Gray et al., 1995). An unweighted index is defined as the proportion of the number of items a firm actually discloses to the total that it could disclose (Hasan & Hosain, 2015). The unweighted approach is suitable for the longitudinal study because the relative importance of each item might change over time and among different sectors (Hassan, Giorgioni, & Romilly, 2006).

Both methods have been criticized. The use of a weighted disclosure index may introduce a bias towards a particular user-orientation, and the use of an unweighted disclosure index has been criticized on its essential presumption that all items are equally important (Barako, 2007).

This study adopted an unweighted voluntary disclosure index and assigned a score of (1) if a disclosure item is disclosed and (0) if not. An unweighted index was used to avoid subjectivity inherent in evaluating the relative importance of each disclosure item. After constructing the disclosure index, a scoring sheet (checklist) was designed to measure the voluntary disclosure level. If a bank disclosed an information item within the index it given a score of 1, and given 0 if it is not disclosed.

Based on the above discussions, Figure (4.4) describes the methodology process that employed in the current research.

Figure 4.4: The Methodology Process



4.3.4.3. The Sample of the Study and Data Collection

The sample of the study represents the whole population of the listed banks in Borsa Istanbul (BIST BANKS). These banks are chosen because they are expected to

disclose additional information (voluntary disclosure), and they are more compliance with corporate governance than unlisted. According to the web page of the Public Disclosure Platform (KAP) of Borsa Istanbul, there are 13 banks listed in Borsa Istanbul (KAP, 2018). Since this population is small, all these banks are selected as the population of this study. Table (4.1) shows a list of these banks.

Table 4.1: List of the banks covered by the current study

ORDER	CODE	BANK NAME
1	AKBNK	AKBANK T.A.Ş.
2	ALBRK	ALBARAKA TÜRK KATILIM BANKASI A.Ş.
3	DENIZ	DENİZBANK A.Ş.
4	QNBFB	QNB FİNANSBANK A.Ş.
5	ICBCT	ICBC TURKEY BANK A.Ş.
6	SKBNK	ŞEKERBANK T.A.Ş.
7	GARAN	TÜRKİYE GARANTİ BANKASI A.Ş.
8	HALKB	TÜRKİYE HALK BANKASI A.Ş.
9	ISATR, ISBTR, ISCTR, ISKUR	TÜRKİYE İŞ BANKASI A.Ş.
10	KLNMA	TÜRKİYE KALKINMA BANKASI A.Ş.
11	TSKB	TÜRKİYE SINAİ KALKINMA BANKASI A.Ş.
12	VAKBN	TÜRKİYE VAKIFLAR BANKASI T.A.O.
13	YKBNK	YAPI VE KREDİ BANKASI A.Ş.

The main objective of this study is to evaluate the extent of voluntary disclosure in the annual reports published by listed banks in Borsa Istanbul and examine its relationship with corporate governance. The data was gathered from the annual reports of listed banks in Borsa Istanbul during the period between 2013 and 2017. Annual reports are generally viewed as both the main source of information and the important channel of communication with external users (Scaltrito, 2016).

In the recent years, there has been an increasing awareness of corporate governance and transparency, that is why the recent five years are selected in this study. An important incentive for selecting this time horizon is that these five years represent

the period from the beginning of Borsa Istanbul in 2013 up to the last published annual reports in 2017. Also, this study used up to date data, this means that the most recent data at the time of conducting the study. The study covers the annual reports of banks from 2013 to 2017 that are available. The copies of these annual reports are downloaded from each bank from its website.

Since corporate governance is purely based on the activities of the individual entity, some research data (total assets, profitability and leverage) were collected from unconsolidated financial statements because they have a clear picture and position to reveal of the individual entity. In contrast, consolidated financial statements may include other non-banking subsidiaries owned by the bank that their activities may not similar to the banking operations. Therefore, unconsolidated financial statements are studied because they represent the bank's actual data. In addition to that, the unconsolidated financial statements are used to keep the consistency of the data because some consolidated financial statements data were not available in some years (ALBRK Türk Bank in 2013, 2014 and 2015) during the study period.

4.3.4.4. Research Method to Measure the Extent of Voluntary Disclosure (Dependent Variable)

This part aims to describe the method utilized to measure the dependent variable (the level of voluntary disclosure in the annual reports of listed banks in Borsa Istanbul during the period from 2013 to 2017). A two-step process was used to measure the level of voluntary disclosure for each year and each bank: (1) constructing the voluntary disclosure index, and (2) scoring the voluntary disclosure items.

1. Constructing the voluntary disclosure index

This study is similar to other disclosure studies that used self-constructed voluntary disclosure indexes (e.g. Allegrini & Greco, 2013; H. Alves, Rodrigues, & Canadas, 2012; Cheung, Jiang, & Tan, 2010; Webb, Cahan, & Sun, 2008). The main step in the construction of the voluntary disclosure index is choosing the voluntary information items which may be published in the annual reports of banks and which are pertinent to the Turkish environment.

Wallace (1988) states that there is no general theory to guide researchers about the list of information items that should be included in the disclosure index. To select the items that included in the index, this study is based on the following:

- Information items suggested for banking disclosure by the International Financial Reporting Standards (IFRS) and Basel Committee. These items should not be obligatory for disclosure by any Turkish regulations.
- Information items contained within pertinent empirical voluntary disclosure studies (Abeywardana & Panditharathna, 2016; Achoki et al., 2016; Ağca & Önder, 2007; Agyei-Mensah, 2012; Al-Shammari & Al-Sultan, 2010; Alotaibi, 2014; El-Diftar, 2016; Hawashe, 2014; Mohammed Hossain & Reaz, 2007; Mohammed Hossain & Taylor, 2007; Htay, 2012; Mamun & Kamardin, 2014; Ramadhan, 2014; Uyar & Kiliç, 2012; Uyar et al., 2013).

The final 64 voluntary information items were identified to measure and evaluate the level of voluntary disclosure. These items were categorized into six key categories in accordance with their nature. Table (4.2) displays these items and their percentage under

each category. The whole list of these 64 voluntary disclosure items is displayed in Appendix No.1.

Table 4.2: Categories of voluntary disclosure items

Category	Number of Items	%
(1) General and Strategic Information.	17	26.6
(2) Directors and Managers Information.	15	23.4
(3) Social Responsibility Information.	6	9.4
(4) Financial Performance.	15	23.4
(5) Accounting Policies.	7	10.9
(6) Other Information.	4	6.3
Total	**64**	**100**

2. Scoring the voluntary disclosure items

Prior studies have adopted different approaches to building a scoring scheme to measure the disclosure level of annual reports; a weighted approach, an unweighted approach or both weighted and unweighted approaches. The scoring approach that adopted in this study is the un-weighted; it supposes that all information items are deemed equally important for all groups of user banks' annual reports. The voluntary disclosure items are scored as follows:

- A score of one (1) is awarded to the bank if the item is disclosed in the annual report.
- A score of zero (0) is awarded if the item is not disclosed in the annual report.

The next step, that follows the scoring voluntary disclosure items, is to compute the Total Voluntary Disclosure Index score (TVDI) for each of the 65 annual reports from the banks as a rate of the Actual Voluntary Disclosure score (AVD), that is given to a bank, divided by the Maximum Voluntary Disclosure score (MVD), which certain bank

is predicted to disclose (Binh, 2012; Derouiche et al., 2016; Gisbert & Navallas, 2013; Haddad, AlShattarat, AbuGhazaleh, & Nobanee, 2015; Hawashe, 2014; Hieu & Lan, 2015; Mohammed Hossain & Hammami, 2009; G. M. Liao & Lu, 2009; Uyar et al., 2013).

The measurement of the level of voluntary disclosure is determined by the formula:

$$\text{TVDI} = \frac{\sum_{i=1}^{n} AVD}{MVD}$$

Where:

TVDI = Total Voluntary Disclosure Index,

AVD = Actual Voluntary Disclosure score (i = 1 if the item is disclosed; i = 0 if the item is not disclosed),

MVD = Maximum applicable Voluntary Disclosure score,

n = number of items disclosed.

4.3.4.5. Research Method to Measure Internal Corporate Governance Mechanisms (Independent Variables)

The independent variables of this study are corporate governance mechanisms of listed banks in Borsa Istanbul. To measure corporate governance mechanisms, they are divided into three categories: the board of director's characteristics, audit committee characteristics, and ownership structure. Table (4.3) shows the definitions, measurements and prior studies support to these measurements.

Table 4.3:The definitions and measurements of independent variables

Independent Variables	Measurement	Some Prior Studies support the measurement
a) **Board of directors characteristics:**		
Board Independence (BOIND)	Proportion of independent (non-executive) directors on the board	(Cornett, McNutt, & Tehranian, 2009; Grassa & Chakroun, 2016; Hieu & Lan, 2015; Samaha, Dahawy, Abdel-Meguid, et al., 2012; Singh & Delios, 2017; Sun, Yi, & Lin, 2012; Villanueva-Villar et al., 2016).
Board Size (BOSIZE)	The number of board members.	(García-Sánchez, García-Meca, & Cuadrado-Ballesteros, 2017; Hayat & Hassan, 2017; Samaha et al., 2015; Suleiman, 2014; Tan, Shah, & Tan, 2017; Wang, Chen, Chin, & Zheng, 2017).
Board Meetings (BOMEET)	Total number of board meetings per year	(Al-Daoud, Saidin, & Abidin, 2016; Albassam, 2014; Jizi et al., 2013; Ronnie Lo, 2009; Tan et al., 2017).
Role Duality (ROLDU)	Dummy variable; (1) if bank's CEO serves as a board chairman, (0) otherwise.	(Al-Shammari & Al-Sultan, 2010; Albassam, 2014; Haat et al., 2008; Jing Li et al., 2008; Moumen et al., 2016; Ramadhan, 2014; Samaha, Dahawy, Hussainey, & Stapleton, 2012).
b) Audit committee characteristics:		
Audit Committee Financial Expertise (ACFEX)	The percentage of audit committee members who have a qualification or an expertise in accounting, auditing or finance	(Badolato, Donelson, & Ege, 2014; Krishnan & Visvanathan, 2008; Madi et al., 2014; Othman et al., 2014; Persons, 2009; Xie et al., 2003).
Audit Committee Meetings (ACMEET)	Total number of audit committee meetings per year	(Allegrini & Greco, 2013; Bedard, Chtourou, & Courteau, 2004; Greco, 2011; Madi et al., 2014; Othman et al., 2014; Persons, 2009; Xie et al., 2003).
Audit Committee Size (ACSIZE)	Total number of directors on the audit.	(Akhtaruddin & Abdur Rauf, 2012; Habbash, 2010; Jizi et al., 2013; Madi et al., 2014; Othman et al., 2014; Persons, 2009; Ramadhan, 2014; Xie et al., 2003).
c) **Ownership structure:**		
Institutional Ownership (INSOWN)	Percentage of shares owned by institutional investors to the total number of shares issued	(Ashfaq, Zhang, Munaim, & Razzaq, 2016; Barako, 2007; Barako et al., 2006; El-Diftar, 2016; Kamal, 2012; Koh, 2003; C.-H. Liao, 2011; Mahoney & Roberts, 2007; Saha & Akter, 2013; Tsao, Lu, & Keung, 2016)
Blockholder Ownership (BLCOWN)	The proportion of ordinary shares owned by substantial shareholders (with equity of 5% or more of the total number of shares issued)	(Almasarwah, 2015; Eng & Mak, 2003; Grassa & Chakroun, 2016; Huafang & Jianguo, 2007; Juhmani, 2013; Kelton & Yang, 2008; Samaha, Dahawy, Hussainey, et al., 2012)

4.3.4.6. Research Method to Measure Control Variables

The control variables of this study are some corporate characteristics of the listed banks in Borsa Istanbul. Firm characteristics are considered as one of the important determinants of voluntary disclosure. In the relevant literature, there are four firm characteristics are commonly used as control variables; these characteristics are firm age, firm size, profitability, and leverage (e.g. Khan, Muttakin, & Siddiqui, 2013). All these characteristics are used in the current study as control variables to examine the relationship between voluntary disclosure and corporate governance.

a) **Bank Age:** Firm age has been often regarded as a proxy for risk, so the level of voluntary disclosure in a bank can be related to how many years it has been in business (Bukh, Nielsen, Gormsen, & Mouritsen, 2005; Graham et al., 2005; Lundholm, 2003).
b) **Bank Size:** According to the agency theory viewpoint, big firms have higher agency costs. Hence, it is expected that they disclose more information to reduce these costs (Barako et al., 2006; Derouiche et al., 2016; Ferguson, Lam, & Lee, 2002; Owusu-Ansah, 1997; Raffournier, 1995). Accordingly, big firms try to reduce these costs through voluntary disclosure.
c) **Bank Profitability:** Most of disclosure studies assume a relationship between firm profitability and voluntary disclosure. It is argued that firms with higher profit are more likely to indicate to the market their superior performance by disclosing more information in their annual reports (Cooke, 1989; Wallace & Naser, 1995; Wallace, Naser, & Mora, 1994). Agency theory implies that managers of very profitable firms will use external information through voluntary

disclosure to get personal benefits like a continuance of their positions and compensation arrangements (Inchausti, 1997)

d) **Bank Leverage:** A company with more debt in its capital structure needs higher disclosure level to decrease agency costs of debt (Derouiche et al., 2016). This viewpoint is consistent with agency theory which implies that higher leverage ratios will lead to higher monitoring costs (Jensen & Meckling, 1976). However, more comprehensive levels of disclosure may mitigate the agency problem. Several studies have found a positive relationship between leverage and the level of disclosure (e.g. Barako et al., 2006; Bradbury, 1992; Derouiche et al., 2016; Ferguson et al., 2002; Malone, Fries, & Jones, 1993; Naser, 1998).

The definitions, measurements and prior studies support to these measurements are displayed in table (4.4).

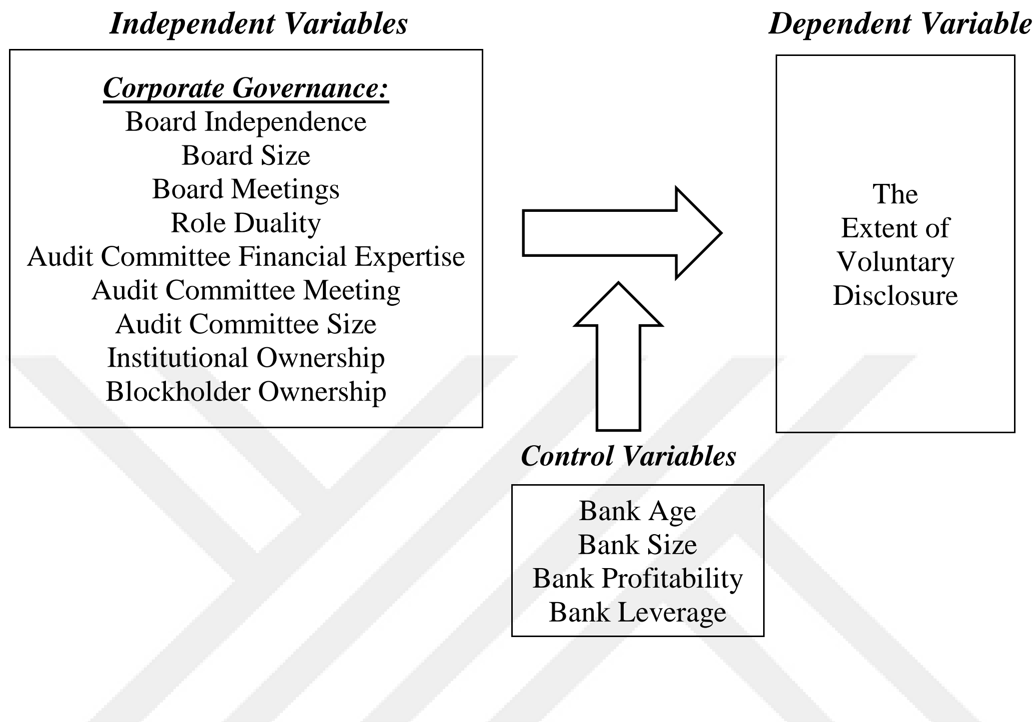
Table 4.4: The definitions and measurements of control variables

Control Variables	Measurement	Prior Studies Support the Measurement
Bank Age (BAGE)	Natural logarithm of the number of years from inception until 2017. Ln (bank age + 1)	(Beiner, Drobetz, Schmid, & Zimmermann, 2006; Ji, Lu, & Qu, 2017; Khan et al., 2013)
Bank Size (BSIZE)	Natural logarithm of total assets	(Azutoru, Obinne, & Chinelo, 2017; Beiner et al., 2006; Ji et al., 2017; Kamal, 2012; Khan et al., 2013)
Bank Profitability (BPROF)	ROA = Net income / average of total assets	(Alotaibi, 2014; Azutoru et al., 2017; Beiner et al., 2006; Gu & Li, 2007; Ji et al., 2017; Khan et al., 2013)
Bank Leverage (BLEVE)	Ratio of total debt to total assets.	(Alotaibi, 2014; Ji et al., 2017; Kamal, 2012; Khan et al., 2013)

A scoring sheet was designed in order to measure and score each of the research variables (Appendix No. 2).

The research framework and the relationship among research variables are illustrated in the figure (4.5):

Figure 4. 5: The research framework and the relationship among research variables



4.3.5. Statistical Methods and Techniques

To analyze data and test the research hypotheses, both univariate and multivariate statistical analyses are employed to examine the association between the level of voluntary disclosure and corporate governance mechanisms.

4.3.5.1. Univariate Analysis

This study employed the univariate analysis to investigate the correlation between each independent variable and the dependent variable (the extent of voluntary disclosure). Descriptive analysis is used, including mean, standard deviation, minimum, maximum, skewness, and Kurtosis for both dependent and independent variables. Correlation

analysis is also applied to examine the significant relationship between the extent of voluntary disclosure and each of corporate governance mechanisms.

4.3.5.2. Multivariate Analysis

Multivariate technique is used to investigate the linear association between one dependent variable and a group of independent variables. Rencher (2002) indicates that multivariate analysis is more powerful than univariate analysis and allows researchers to explore the combined performance of the variables and define the influence of each variable in the presence of the others. A Multiple Regression Analysis was conducted to examine the relationship between voluntary disclosure level and corporate governance mechanisms. The multiple regression analysis has been commonly applied in many prior studies to measure the impact of corporate governance mechanisms and the level of voluntary disclosure (e.g. Akhtaruddin & Abdur Rauf, 2012; Akhtaruddin et al., 2009; Albassam, 2014; Alves, 2011; Eng & Mak, 2003; Gisbert & Navallas, 2013; Ho & Taylor, 2013; Kolsi, 2012). The following model is formed to investigate the relationship between the total voluntary disclosure index (TVDI) and corporate governance mechanisms:

Research Model

$$TVDI = \beta 0 + \beta 1\ BOIND + \beta 2\ BOSIZE + \beta 3\ BOMEET + \beta 4\ ROLDU + \beta 5\ ACFEX + \beta 6\ ACMEET + \beta 7\ ACSIZE + \beta 8\ INSOWN + \beta 9\ BLCOWN + \beta 10\ BAGE + \beta 11\ BSIZE + \beta 12\ BPROF + \beta 13\ BLEVE + \epsilon$$

Where:

- TVDI = Total Voluntary Disclosure Index;
- $\beta 0$ = Intercept;
- $\beta 1$ to $\beta 13$= Coefficient of slope parameters;
- BOIND = Board Independence;
- BOSIZE = Board Size;
- BOMEET = Board Meetings;
- ROLDU = Role Duality;
- ACFEX = Audit Committee Financial Expertise;
- ACMEET = Audit Committee Meetings;
- ACSIZE = Audit Committee Size;
- INSOWN = Institutional Ownership;
- BLCOWN = Blockholder Ownership;
- BAGE = Bank Age;
- BSIZE = Bank Size;
- BPROF = Bank Profitability;
- BLEVE = Bank Leverage;
- ϵ = Error term.

CHAPTER 5: THE LEVEL OF VOLUNTARY DISCLOSURE AND ITS RELATIONSHIP WITH INTRNALCORPORATE GOVERNANCE MECHANISMS: ANALYSIS AND FINDINGS

5.1. Introduction

As mentioned in the previous chapter, this study adopted the deductive approach and quantitative research design. Since the source of data is the annual reports, the archival and documentary research was adopted in this study. The data is collected across a number of years. Therefore, a longitudinal research procedure is also adopted. The sample of the study represents the whole listed banks (13 banks) in Borsa Istanbul (BIST BANKS). The data was gathered from the annual reports of these banks during the period from 2013 to 2017.

This chapter specifically addresses the empirical work which aims to answer the research questions that were clearly posted in Chapter 1 (section 1.2). The research questions are repeated here again:

1. What is the extent of voluntary information disclosure in the annual reports of Listed Banks in Borsa Istanbul during the period from 2013 to 2017?
2. Is there any significant improvement in the voluntary disclosure level in the annual reports of Listed Banks in Borsa Istanbul during the period from 2013 to 2017?

3. What is the extent of the relationship, if any, between each of the internal corporate governance mechanisms and voluntary disclosure in Listed Banks in Borsa Istanbul?

This chapter presents and discusses the findings of the measurement and analysis that undertaken to seek answers the research questions. It is split into three main sections. Starting with the reliability and validity of the voluntary disclosure index in section (5.2). Section (5.3), discusses and evaluates the extent of voluntary disclosure and its categories in the annual reports of listed banks in Borsa Istanbul during the period from 2013 to 2017. The last section (5.4) is about examining the relationship between voluntary disclosure and corporate governance and test research hypotheses.

5.2. The Credibility of the Voluntary Disclosure Index

Similar to prior studies, this study depends on the researcher's subjective judgment to develop and apply a disclosure index. In general, all observations and measurements include an error. To lessen the risk of getting an error in answers research questions, it is necessary to guarantee the credibility of the study outcomes of two important aspects of the research design, called: the reliability and validity of the voluntary disclosure index.

5.2.1. The Reliability of the Voluntary Disclosure Index

According to Sekaran & Bougie (2016, p. 223) *“the reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument.”* The Cronbach’s alpha test has been used widely in the disclosure literature to measure the reliability of the disclosure index (see e.g. Albassam, 2014; Allegrini & Greco, 2013;

Alves, Canadas, & Rodrigues, 2015; Chobpichien et al., 2017; Consoni & Colauto, 2016; Lapointe-Antunes et al., 2006; Mansour, 2013). Cronbach's alpha is used to measure the internal consistency of the various categories of the disclosure index to estimate the degree of attenuated correlations among the measurements due to random error (Lapointe-Antunes et al., 2006). The reasoning behind using this test is that if the inter-correlations among the items of disclosure index are high, the items will measure the same underlying construct (Chobpichien et al., 2017).

The value of Cronbach's coefficient alpha ranges between 0 and 1, when the value is closer to 1 indicates that the higher internal consistency reliability (Sekaran & Bougie, 2016). Cronbach's coefficient alpha less than 0.60 is considered poor, over 0.60 to 0.70 is acceptable, and more than 0.80 is considered to be good (Hair, Black, Babin, & Anderson, 2009; Sureshchandar, Rajendran, & Anantharaman, 2002).

STATA software package 15.1 was used to compute Cronbach's coefficient alpha. Table (5.1) presents the Cronbach's alpha for each variable of voluntary disclosure items of listed banks in Borsa Istanbul. The findings show that the Cronbach's coefficient alpha is 0.7660, which means that the Total Voluntary Disclosure Index (TVDI) has an acceptable degree of internal consistency reliability. As seen from Table (5.1), the voluntary disclosure checklist categories used in the current study were reliable, with coefficients ranging from 0.6852 to 0.7926, which exceeded the minimum acceptable level of 0.60.

Table 5. 1: The reliability test of categories of voluntary disclosure index

Category	N. of items	Sign	Item-test correlation	Item-rest correlation	Cronbach's coefficient alpha
GSI	17	+	0.7625	0.6973	0.7223
DMI	15	+	0.8248	0.7438	0.6852
CSR	6	+	0.8488	0.665	0.7044
FPI	15	+	0.5902	0.4154	0.7539
AP	7	-	0.218	0.1456	0.7926
OTH	4	+	0.8191	0.6496	0.6935
Test scale					**0.7660**

Where: GSI=General and Strategic Information, DMI=Directors and Management Information, CSR=Corporate Social Responsibility, FPI=Financial Performance Information, AP=Accounting Policy, and OTH=Others

5.2.2. The Validity of the Voluntary Disclosure Index

As inaccuracies can appear in any stage of a study, the concept of validity can be employed in any steps of the whole research process: study design, sampling strategy, conclusions drawn, the statistical procedures applied or the measurement procedures used (Kumar, 2011). Any measuring device or instrument is stated to be valid if it measures what it is expected to measure (Pandey & Pandey, 2015). According to Sekaran & Bougie (2016, p. 137), *"Validity indicates the extent to which observations accurately record the behavior in which you are interested."*

Regarding the disclosure index, the scores validity concerning the disclosure indicates whether the research instruments measure the accurate level of disclosure (Kosaiyakanont, 2011). According to Sekaran (2003), the correlation coefficient is a way to investigate construct validity. The correlation coefficient is applied in prior disclosure studies in order to estimate the validity of disclosure scores (e.g. Ahmed & Courtis, 1999; Botosan & Botosan, 2018; Cheng & Courtenay, 2006).

Table (5.2) and Table (5.3) display both Pearson and Spearman correlation coefficients, respectively, and significances between categories and TDVI. The outcomes show that all categories are correlated to TDVI at the 5% significance level, except for Accounting Policy (AP). In general, it can be said that the validity of the voluntary disclosure index is acceptable.

Table 5. 2: Pearson's Correlation analysis of TDVI scores and categories

	TVDI	*GSI*	*DMI*	*CSR*	*FPI*	*AP*	*OTH*
TVDI	1						
GSI	0.7802*	1					
	0.000						
DMI	0.8158*	0.5192*	1				
	0.000	0.000					
CSR	0.8023*	0.5148*	0.6883*	1			
	0.000	0.000	0.000				
FPI	0.6601*	0.3936*	0.2937*	0.3431*	1		
	0.000	0.0012	0.0176	0.0051			
AP	-0.1999	-0.2325	-0.3529*	-0.0831	-0.0671	1	
	0.1104	0.0623	0.0039	0.5104	0.5952		
OTH	0.7128*	0.5729*	0.5746*	0.4863*	0.3410*	0.0081	1
	0.000	0.000	0.000	0.000	0.0054	0.9487	

*Correlation is significant at the 0.05 level.

Where: TVDI=Total Voluntary Disclosure Index, GSI=General and Strategic Information, DMI=Directors and Management Information, CSR=Corporate Social Responsibility, FPI=Financial Performance Information, AP=Accounting Policy, and OTH=Others

Table 5. 3: Spearman's Correlation analysis of TDVI scores and categories

	TVDI	*GSI*	*DMI*	*CSR*	*FPI*	*AP*	*OTH*
TVDI	1						
GSI	0.7631*	1					
	0.000						
DMI	0.3749*	0.1616	1				
	0.0021	0.1985					
CSR	0.6519*	0.4590*	0.3740*	1			
	0.000	0.0001	0.0021				
FPI	0.7083*	0.3751*	-0.0281	0.2649*	1		
	0.000	0.0021	0.8242	0.033			
AP	0.0628	-0.0334	-0.0958	0.081	-0.1663	1	
	0.619	0.792	0.4476	0.5212	0.1854		
OTH	0.6525*	0.5458*	0.3373*	0.2744*	0.3163*	0.0986	1
	0.000	0.000	0.006	0.027	0.0103	0.4345	

*Correlation is significant at the 0.05 level.

Where: TVDI=Total Voluntary Disclosure Index, GSI=General and Strategic Information, DMI=Directors and Management Information, CSR=Corporate Social Responsibility, FPI=Financial Performance Information, AP=Accounting Policy, and OTH=Others

5.3. Voluntary Disclosure and its Categories over Five Years

This section discusses the extent of voluntary disclosure in annual reports of each bank during the period (2013-2017), and analyzes its development over five-year period. Furthermore, it contains a discussion about the categories of voluntary disclosure.

5.3.1. The Extent of Total Voluntary Disclosure

A voluntary disclosure index is constructed to measure the extent of voluntary disclosure in 65 annual reports of 13 banks listed in Borsa Istanbul for the years from 2013 to 2017.

5.3.1.1. The Extent of Total Voluntary Disclosure among Banks

Table (5.4) presents the voluntary disclosure scores of each bank for each year (2013-2017) as a proportion of the total voluntary disclosure index (TVDI). The banks

were arranged in descending order according to their voluntary disclosure averages so that the bank with the highest voluntary disclosure level is in the first and so on.

Table (5.4) reveals that the highest mean of TVDI over the five years was 85%, achieved by ISATR, followed by AKBNK with the second highest mean index score of 84%. The table also shows that the lowest mean of TVDI during the five years was 52% which reported by ICBCT bank. Whilst, the second lowest mean of TVDI achieved by SKBNK bank and KLNMA bank with a mean of 71% (see figure 5.1).

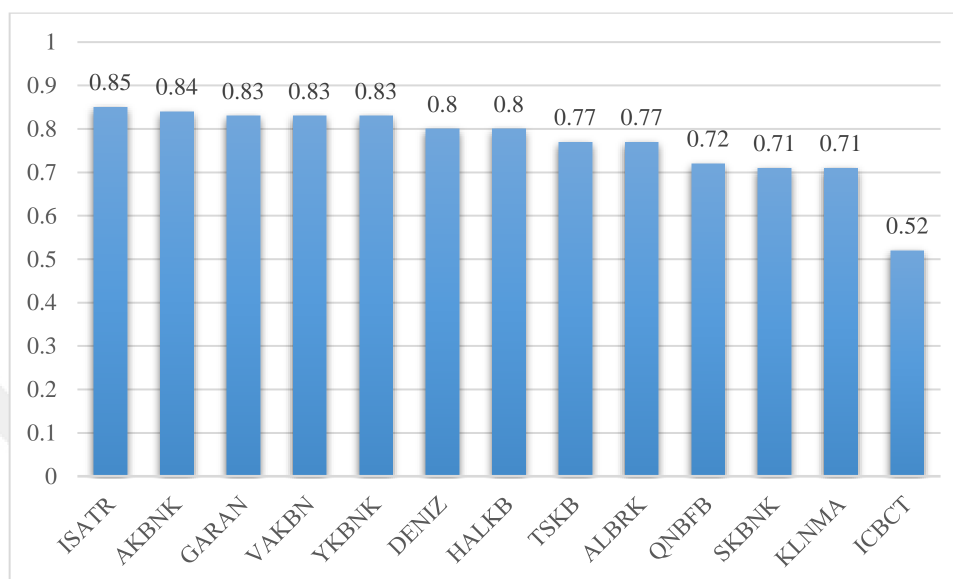
Table 5. 4: The TVDI for each bank during the five-year period

BANKS	Years						Disclosure Level*
	2013	2014	2015	2016	2017	Pooled	
ISATR	0.86	0.86	0.84	0.84	0.84	0.85	Very High
AKBNK	0.83	0.83	0.84	0.84	0.84	0.84	Very High
GARAN	0.83	0.83	0.83	0.83	0.83	0.83	Very High
VAKBN	0.81	0.81	0.84	0.84	0.84	0.83	Very High
YKBNK	0.84	0.81	0.83	0.83	0.83	0.83	Very High
DENIZ	0.80	0.75	0.81	0.81	0.81	0.80	High
HALKB	0.80	0.80	0.80	0.80	0.80	0.80	High
TSKB	0.75	0.77	0.78	0.78	0.78	0.77	High
ALBRK	0.77	0.77	0.77	0.77	0.77	0.77	High
QNBFB	0.72	0.72	0.72	0.72	0.73	0.72	High
SKBNK	0.70	0.72	0.69	0.70	0.72	0.71	High
KLNMA	0.70	0.69	0.72	0.72	0.72	0.71	High
ICBCT	0.40	0.40	0.58	0.62	0.60	0.52	Moderate
Pooled	0.75	0.75	0.77	0.78	0.78	0.77	High
Disclosure Level*	High	High	High	High	High	High	
*(01% - 20% = Very Low Level) - (21% - 40% = Low Level) - (41% -60% = Moderate Level) - (61% - 80% = High Level) - (81% - 100% = Very High Level).							

The TVDI of the other banks ranges between 72% and 83%. As can be seen in Table (5.4), most banks maintained nearly the same mean of TVDI during the five years; excepting ICBCT bank which its average of TVDI obviously increased from 40% to 58%

in 2015. The pooled percentage of TVDI for all banks during the period was high with an average of 77%.

Figure 5. 1:The extent of total TVDI for each bank



5.3.1.2 The Development of Total Voluntary Disclosure over the Five-year Period

With regard to years, table (5.5) displays the descriptive statistics of TVDI for each year and for all five years together. The highest score during the years was 78% in 2016 and 2017, and the lowest scores were 75% in 2013 and 2014

In 2013 and 2014 the mean was 75%; the mean grew dramatically to about 77% in 2015. In 2016 and 2017, it increased slightly to 78%. In general, it is noticed that there has been an improvement in TVDI during the period study (2013-2017) (see figure (5.2). The minimum of TVDI in 2013 and 2014 was 0.40; in 2015 the minimum increased dramatically to 0.58 and in 2016 and 2017 was 0.62 and 0.60 respectively; while the maximum ranges between 0.84 and 0.86 during the years.

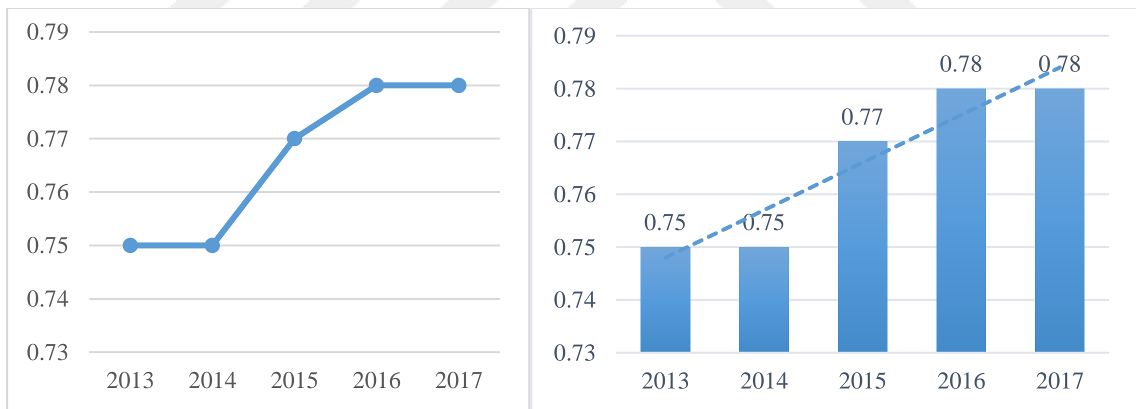
Table 5. 5: Descriptive statistics of TVDI for each year

Variable	N	Mean	Std. Deviation	Min	Max	Skewness	Kurtosis
TVDI 2013	13	0.75	0.11907	0.40	0.86	-2.15559	7.22807
TVDI 2014	13	0.75	0.11665	0.40	0.86	-2.21811	7.51105
TVDI 2015	13	0.77	0.07739	0.58	0.84	-1.25957	3.86699
TVDI 2016	13	0.78	0.06848	0.62	0.84	-0.969049	2.98511
TVDI 2017	13	0.78	0.07026	0.60	0.84	-1.262307	4.02349
Pooled	65	0.77	0.08946	0.40	0.86	-1.691383	5.51463

Where: TVDI=Total Voluntary Disclosure Index

In sum, the analysis of voluntary disclosure scores implies that the extent of voluntary disclosure by listed banks in Borsa Istanbul has noticeably increased during the period of study (2013-2107), this increase started from 2015 (Figure 5.2).

Figure 5. 2: The extent of TVDI during the five-year period (2013-2017)



For gathering further insights into the voluntary disclosure in annual reports of listed banks in Borsa Istanbul, Table (5.6) presents the frequency distribution of the TVDI among banks during the period of the study.

Table 5. 6: Frequency distribution of the TVDI among banks

TVDI	Number and Percentage of Banks									
	2013		2014		2015		2016		2017	
	No	%	No	%	No	%	No	%	No	%
More than 0.80	5	38.5	5	38.5	6	46.2	6	46.2	6	46.2
0.71 – 0.80	5	38.5	6	46.2	5	38.5	6	46.2	6	46.2
0.61 – 0.70	2	15.4	1	7.7	1	7.7	1	7.6	0	0
0.50 – 0.60	0	0	0	0	1	7.6	0	0	1	7.6
Less than 0.50	1	7.6	1	7.6	0	0	0	0	0	0
Total	13	100	13	100	13	100	13	100	13	100

It can be observed from Table (5.6) that in 2013 most banks 10 of 13 (77%) disclosed more than 70 % of TVDI, and 2 banks (15.4%) disclosed more than 50%, but only one bank (7.6%) disclosed less than (50%). In 2014, 11 banks (84.6%) disclosed more than 70%, and the range of disclosure of the remaining 2 banks (15.4%) was between less than 50% to 70%. In 2015, there was an increase in banks that disclosed more than 70%, they were 11 banks (84.6%) while there were 2 banks disclosed less than 71%. In 2016 and 2017, the number of banks that disclosed more than 70% increased to 12 (92.3%), whilst only bank disclosed less than 71% in 2016 and only bank disclosed less than 61% in 2017.

5.3.1.3. Testing the Significance of the Increasing of TVDI during 2013-2017

The results and the discussion above indicated that there is a progressive increase in TVDI over the study period from 2013 to 2017. Also, there is a slight increase in the number of banks that disclose more voluntary information during these years.

Before testing the significance of changes in TVDI over the five years, it is necessary to check the normality of the data in order to determine whether to apply

parametric or non-parametric tests. The Shapiro-Wilk Test is a well-known test of normality. This test is more appropriate for small sample sizes (n < 20) (Shapiro & Wilk, 1965). Table (5.7) shows the results of the Shapiro-Wilk Test that applied to check the normality of the distribution of TVDI over the study period, the null hypothesis is that TVDI over the study period has a normal distribution. The results indicate that the distribution of TVDI over the five years was not significant at the 0.05 level (all P-values are less than 0.05), implying that the null hypothesis was rejected, thus the distribution of TVDI over the study period is non-normality.

Table 5. 7: Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob > z
TVDI 2013	13	0.72254	4.887	3.108	0.00094
TVDI 2014	13	0.73963	4.586	2.984	0.00142
TVDI 2015	13	0.80712	3.397	2.396	0.00829
TVDI 2016	13	0.85675	2.523	1.813	0.03492
TVDI 2017	13	0.79951	3.531	2.472	0.00673

Where: TVDI=Total Voluntary Disclosure Index

Since the normality is not met, non-parametric test should be applied. The Friedman test was applied to examine whether there is a significant difference between TVDI over the study period. One of the main uses of the Friedman test is to measures made over time (Boslaugh & Watters, 2008). The null hypothesis is that there is no significant difference between TVDI over the study period. Table (5.7) reveals that the P-value = 0.025, it is less than 0.05, thus the null hypothesis was rejected, meaning that there are statistically significant differences between TVDI scores over the period at the 0.05 level.

Table 5. 8: The Friedman test of TVDI (2013-2017)

Ranks	
Variable	**Mean Rank**
TVDI 2013	2.31
TVDI 2014	2.54
TVDI 2015	3.12
TVDI 2016	3.38
TVDI 2017	3.65
Test Statistics	
N	13
Chi-Square	11.103
df	4
Asymp. Sig.	0.025

Where: TVDI=Total Voluntary Disclosure Index

In conclusion, it can be said that there has been an increase in the level of voluntary disclosure in annual reports of listed banks in Borsa Istanbul during the period between 2013 and 2017.

5.3.2. The Extent of Voluntary Disclosure Categories

In order to analyze the extent of voluntary disclosure in more details, this section presents and analyzes the descriptive statistics of the level of the six voluntary disclosure categories in the annual reports of listed banks in Borsa Istanbul over the period from 2013 to 2017. It also analyzes the development of these categories during the period and provides a discussion about the differences in the six categories among the banks.

Table (5.9) shows the results of descriptive statistics for the six categories of voluntary disclosure in annual reports of listed banks in Borsa Istanbul during the period from 2013 to 2017. According to Table (5.9), the means of the categories levels range between 45% (OTH) and 87% (DMI and AP). The table also shows that the maximum

levels range between 75% (OTH) and 94% (AP), whereas the minimum levels range from 0% (OTH and CSR) to 57% (AP).

Table 5. 9: Descriptive statistics for the six categories of voluntary disclosure

Variable	Mean	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
GSI	0.75	0.09771	0.41	0.88	-1.3041	5.8367
DMI	0.87	0.13196	0.27	0.93	-3.2696	14.1531
CSR	0.65	0.24118	0	0.83	-0.9580	4.1526
FPI	0.74	0.14229	0.47	0.93	-0.2537	1.8165
AP	0.87	0.05999	0.57	0.94	-0.8312	12.8692
OTH	0.45	0.20823	0	0.75	-0.4317	2.7554

Where: GSI=General and Strategic Information, DMI=Directors and Management Information, CSR=Corporate Social Responsibility, FPI=Financial Performance Information, AP=Accounting Policy, and OTH=Others

5.3.2.1. The Levels of Categories of Voluntary Disclosure among Banks

When looking at Table (5.10) and Figure (5.3), it can be observed that the higher level of General and Strategic Information (GSI) was 88%, which reported by DENIZ and ISATR, whilst the second highest level reported by AKBNK, VAKBN and YKBNK with an average of 82%. Also, it can be seen that the lowest level of GSI which reported by ICBCT bank with an average of 62% followed by KLNMA with an average of 63%. The averages of GSI levels of the other banks range between 67% and 76%.

The majority of banks have high levels of DMI with averages of 80% and more, excluding ICBCT bank which its average was 47%. Regarding with CSR, Table (5.10) and Figure (5.3) shows that 5 banks from 13 (38%) disclosed high levels of CSR with averages more than 82%, whilst the averages of the other banks range between 07% (ICBCT) and 67% (GARAN and HALKB). From Table (5.10) and Figure (5.3), it is

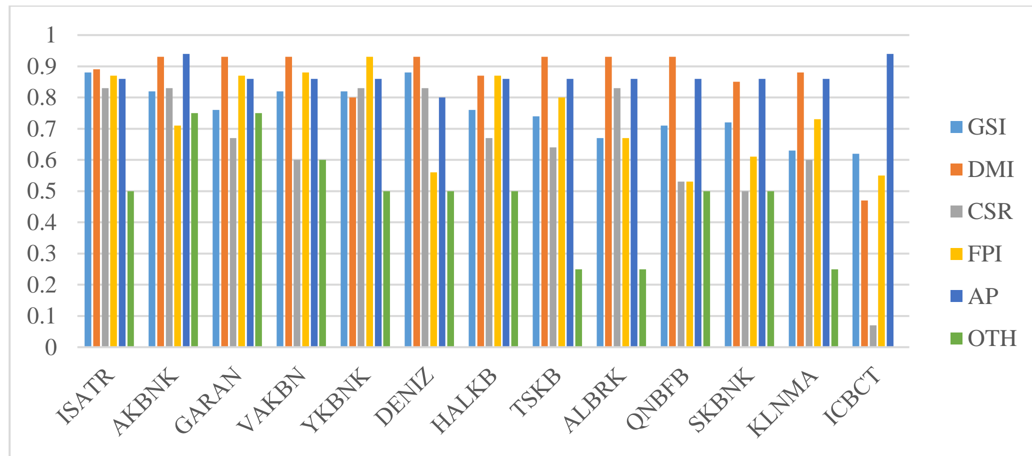
observed that 6 banks (46%) reported high levels of Financial Performance Information (FPI) with averages of 80% and more; the other banks reported medium levels of FPI starting from 53% (QNBFB) to 73% (KLNMA).

Table 5. 10: The levels of categories of voluntary disclosure among banks

BANKS	GSI	DMI	CSR	FPI	AP	OTH
ISATR	0.88	0.89	0.83	0.87	0.86	0.50
AKBNK	0.82	0.93	0.83	0.71	0.94	0.75
GARAN	0.76	0.93	0.67	0.87	0.86	0.75
VAKBN	0.82	0.93	0.60	0.88	0.86	0.60
YKBNK	*0.82*	*0.80*	*0.83*	*0.93*	*0.86*	*0.50*
DENIZ	0.88	0.93	0.83	0.56	0.80	0.50
HALKB	0.76	0.87	0.67	0.87	0.86	0.50
TSKB	0.74	0.93	0.64	0.80	0.86	0.25
ALBRK	0.67	0.93	0.83	0.67	0.86	0.25
QNBFB	*0.71*	0.93	*0.53*	*0.53*	*0.86*	*0.50*
SKBNK	0.72	0.85	0.50	0.61	0.86	0.50
KLNMA	0.63	0.88	0.60	0.73	0.86	0.25
ICBCT	0.62	0.47	0.07	0.55	0.94	0

All banks disclosed high levels of AP starting from 80% (DENIZ) to 94% (AKBNK and ICBCT). The results show that OTH has the lowest level of categories of voluntary disclosure of all banks, the averages range between 0% (ICBCT) and 75% (AKBNK and GARAN).

Figure 5. 3: Categories of voluntary disclosure among banks



5.3.2.2. The Trend of Voluntary Disclosure Categories over the Five-year Period

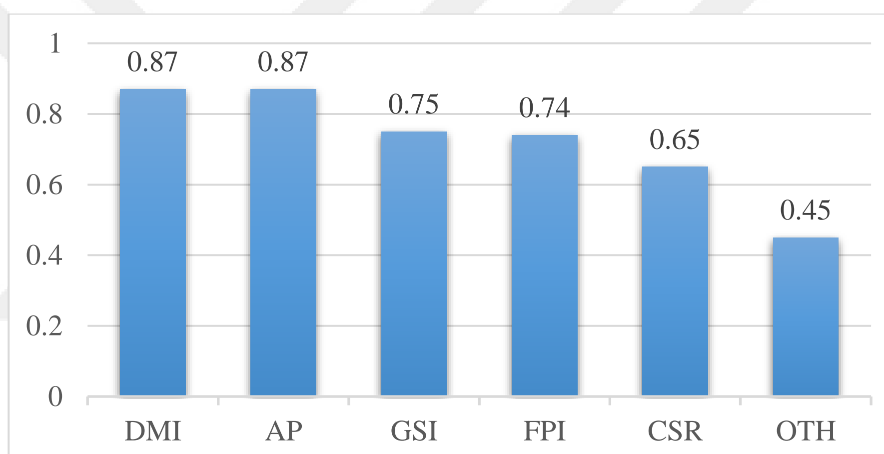
Table (5.11) displays the averages of voluntary disclosure categories during the period of the study. The voluntary disclosure categories were arranged in descending order based on their averages in which the category with the highest average is in the first and so on. According to the table (5.11), Directors and Management Information (DMI) and Accounting Policy (AP) represent the highest means of disclosure levels of 87%, whilst the lowest mean of disclosure level is Others (OTH) with 45%. The means of levels of the other categories range from 65% to 76% (see figure 5.4).

This means that DMI and AP were the dominant categories of voluntary disclosure that most banks accept to disclose, whereas OTH was the lowest category disclosed by banks.

Table 5.11: The averages of voluntary disclosure categories over the period of the study

Disclosure Categories	2013	2014	2015	2016	2017	Pooled	Disclosure Level*
DMI	0.85	0.86	0.87	0.88	0.88	0.87	Very High
AP	0.86	0.87	0.87	0.88	0.88	0.87	Very High
GSI	0.73	0.73	0.77	0.77	0.77	0.75	High
FPI	0.72	0.72	0.74	0.75	0.75	0.74	High
CSR	0.63	0.63	0.65	0.67	0.68	0.65	High
OTH	0.44	0.44	0.44	0.46	0.46	0.45	Moderate
*(01% - 20% = Very Low Level) - (21% - 40% = Low Level) - (41% -60% = Moderate Level) - (61% - 80% = High Level) - (81% - 100% = Very High Level).							

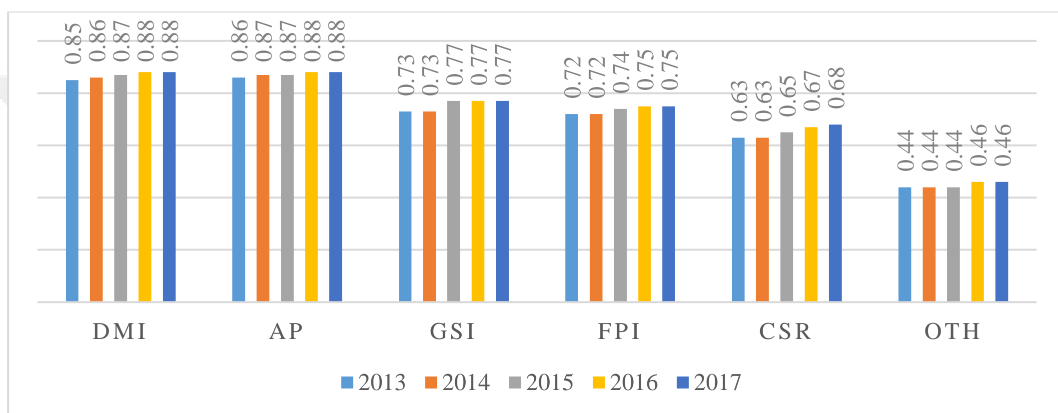
Figure 5. 4: voluntary disclosure categories



Also, from Table (5.11), it can be perceived that there is an increase in the averages of the voluntary disclosure scores in each of the six categories during the five years. It can be said that the level of disclosure of the six categories has increased over the five-year period of the study. It can be noted from Table (5.11) and Figure (5.5), there is a large increase in the level of GSI over the five years started from 2015; the averages of disclosure scores are 73%, 73%, 77%, 77% and 77% respectively for the five-year period from 2013 to 2017. Also, the level of DMI shows a yearly improvement during the five years. Moreover, the level of CSR has improved over the five years; the averages of the disclosure scores were 63% in 2013 and 68% in 2017. It is observed that the levels

of the other categories (FPI, AP and OTH) have increased over the period of the study. In 2013, their averages were 72%, 86% and 44%, respectively, and in 2017 they were 75%, 88% and 46% respectively. Table (5.11) and Figure (5.5) illustrate that OTH was the lowest disclosed category compared to the other categories in all years during the period of the study. Figure (5.5) shows the extent of voluntary disclosure of the six categories during the years from 2013 to 2017.

Figure 5. 5: The extent of voluntary disclosure categories over the study period



In conclusion, the previous discussion about the extent of voluntary disclosure by categories shows gradual increases in the quantity of the level of voluntary disclosure categories disclosed by listed banks in Borsa Istanbul in annual reports over the five years studied.

5.4. Examining the Relationship between Voluntary Disclosure and Corporate Governance Mechanisms

The prior section answered the first and the second research questions of the study. This section aims to answer the third research question and test research hypotheses, related to what is the extent of the relationship between voluntary disclosure and each of the corporate governance mechanisms, and whether this relationship differs among

voluntary disclosure categories. Corporate governance mechanisms are divided into three categories: (1) Board of Directors Characteristics (2) Audit Committee Characteristics: (3) Ownership Structure. The study also controls for some Banks characteristics, including bank age, bank size, profitability and leverage. This section starts with the results of the univariate analysis in subsection (5.4.1), and discusses and analyzes the results of the multivariate analysis in subsection (5.4.2).

5.4.1. Univariate Analysis

Two kinds of univariate analysis are implemented: The first is the descriptive analysis which applied for dependent and independent variables, including mean, standard deviation, maximum, minimum, skewness, and Kurtosis. The second is a correlation analysis, which performed to examine the relationship between dependent, independent and control variables.

5.4.1.1. Descriptive Statistics

The descriptive statistics for dependent, independent and control variables are displayed in Table (5.12). As it is indicated in the table, the average of the level of the Total Voluntary Disclosure Index (TVDI) over the five-year period was about 77%, the minimum was 0.40 reported by ICBCT in 2013 and 2014 whereas the maximum was 0.86 reported by ISATR in 2013 and 2014, this means that none of the banks disclosed all items of the voluntary disclosure index.

The average of Board Independence (BOIND) was about 28%. This proportion is less than the recommended proportion from Turkish corporate governance principles (33%) (CMB, 2003), which implies that the percentage of independent directors in some banks is less than one-third. The average of Board Size (BOSIZE) was 10, this means that

most board sizes are large. Board Meetings (BOMEET) ranges between 4 and 89 meetings per year with an average of about 20 meetings per year. The mean of Role Duality (ROLDU) was 0.06, indicating that the most banks separated between the roles of CEO and chairman.

Table 5. 12: Descriptive statistics for dependent, independent and control variables

Variable	Mean	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
TVDI	0.7666	0.09095	0.40	0.86	-2.233682	9.131416
BOIND	0.2785	0.07153	0.14	0.43	0.1864611	2.801665
BOSIZE	10.31	2.243	6	14	-0.3560362	2.335833
BOMEET	20.48	13.686	4	89	0.6469492	2.243618
ROLDU	0.06	0.242	0	1	3.649051	14.31557
ACFEX	0.6957	0.25085	0.33	1	0.0780852	1.536453
ACMEET	11.95	9.371	3	41	1.174141	3.372504
ACSIZE	2.52	0.793	2	5	1.630926	5.271928
INOWN	0.7051	0.27228	0.00	0.99	-0.954942	3.425533
BLCOWN	0.6186	0.24465	0.25	0.99	0.4323754	1.625063
BAGE	4.010	0.395	3.260	4.530	-0.7343438	2.01785
BSIZE	24.902	1.40798	21.99	26.62	-0.6287663	2.103436
BPROF	0.0130	0.005562	-0.003	0.028	0.036655	3.852021
BLEVE	0.89	0.02345	0.83	0.93	-0.6006311	3.281896

Where: TVDI=Total Voluntary Disclosure Index, BOIND=Board Independence, BOSIZE=Board Size, BOMEET=Board Meetings, ROLDU=Role Duality, ACFEX=Audit Committee Financial Expertise, ACMEET=Audit Committee Meetings, ACSIZE=Audit Committee Size, INSOWN=Institutional Ownership, BLCOWN=Blockholder Ownership, BAGE=Bank Age, BSIZE=Bank Size, BPROF=Bank Profitability, BLEVE=Bank Leverage.

With regard to the audit committee characteristics, Audit Committee Financial Expertise (ACFEX) ranges between 33% and 100% with an average of about 70% which implies that the audit committees of banks contain at least one member who has a financial experiment which is in line with principles of Basel committee (BCBS, 2015). The average of Audit Committee Meetings (ACMEET) was about 12 meetings per year, whilst its minimum and maximum range was from 3 to 41 meetings per year. The Audit Committee Size (ACSIZE) ranges between 2 to 5 with an average of around 3 members in the committee.

The average of Institutional Ownership (INSOWN) was about 71%, whereas the average of Blockholder Ownership (BLCOWN) was 62%, indicating that the majority of banks have a higher institutional ownership structure and most their shares are controlled by small groups. Also, from the table (5.12), it can be seen that the four control variables (bank characteristics) Bank Age (BAGE), Bank Size (BSIZE), Bank Profitability (BPROF), and Bank Leverage (BLEVE) had various ranges.

In addition to the above descriptive statistics, Table (5.13) shows the trends of the averages of the independent and control variables for all banks during the five-year period from 2013 to 2017.

Table 5. 13: Trends of the averages of the independent and control variables during the period of the study.

Variable	2013	2014	2015	2016	2017
BOIND	0.28	0.28	0.28	0.28	0.27
BOSIZE	10.38	10.38	10.23	10.31	10.23
BOMEET	19.55	19.69	20.85	20.97	21.35
ROLDU	0.00	0.08	0.08	0.08	0.08
ACFEX	0.62	0.73	0.76	0.72	0.65
ACMEET	12.53	13.38	11.45	11.18	11.23
ACSIZE	2.62	2.54	2.54	2.54	2.38
INOWN	0.70	0.70	0.71	0.71	0.71
BLCOWN	0.59	0.60	0.62	0.64	0.64
BAGE	3.97	3.99	4.01	4.03	4.05
BSIZE	24.56	24.70	24.91	25.06	25.28
BPROF	0.015	0.013	0.011	0.013	0.014
BLEVE	0.88	0.88	0.89	0.90	0.90

Where: BOIND=Board Independence, BOSIZE=Board Size, BOMEET=Board Meetings, ROLDU=Role Duality, ACFEX=Audit Committee Financial Expertise, ACMEET=Audit Committee Meetings, ACSIZE=Audit Committee Size, INSOWN=Institutional Ownership, BLCOWN=Blockholder Ownership, BAGE=Bank Age, BSIZE=Bank Size, BPROF=Bank Profitability, BLEVE=Bank Leverage.

5.4.1.2. Correlation Analysis

Correlation analysis is employed in order to discover any association between voluntary disclosure and each of the corporate governance mechanisms and bank characteristics. Dancey & Reidy (2017) stated that before performing the multiple

regression analysis, it is necessary to implement a correlation matrix. Both Pearson correlation (parametric test) and Spearman's Rank correlation (non-parametric test) are applied to investigate the relationships. Spearman's Rank correlation is used in order to allow for the non-normality for some of the variables in question.

Table 5. 14: Pearson correlations of voluntary disclosure to corporate governance mechanisms and bank characteristics

	TVDI	***BOIND***	***BOSIZE***	***BOMEET***	***ROLDU***	***ACFEX***	***ACMEET***	***ACSIZE***	***INOWN***	***BLCOWN***	***BAGE***	***BSIZE***	***BPROF***	***BLEVE***
TVDI	1													
BOIND	0.2626*	1												
Sig	0.0346													
BOSIZE	0.4579*	-0.7919*	1											
Sig	0.0001	0.000												
BOMEET	0.1638	0.5423*	-0.3625*	1										
Sig	0.1922	0.000	0.003											
ROLDU	-0.1535	0.4205*	-0.3806*	0.0886	1									
Sig	0.222	0.0005	0.0018	0.483										
ACFEX	0.3636*	0.146	-0.1268	0.2354	-0.1576	1								
Sig	0.0029	0.2458	0.3143	0.059	0.2099									
ACMEET	0.2006	0.3431*	-0.1526	0.4709*	0.0795	0.1755	1							
Sig	0.1092	0.0051	0.2249	0.0001	0.5288	0.162								
ACSIZE	0.0748	-0.2143	0.4003*	-0.3713*	0.0739	-0.3209*	-0.2257	1						
Sig	0.5538	0.0865	0.001	0.0023	0.5586	0.0092	0.0707							
INOWN	-0.3210*	0.205	-0.0295	-0.1208	0.2700*	-0.4990*	-0.1863	0.3596*	1					
Sig	0.0091	0.1014	0.8157	0.3379	0.0296	0.000	0.1373	0.0033						
BLCOWN	-0.3836*	-0.0184	-0.0633	-0.3356*	0.3918*	-0.6070*	-0.2705*	0.5533*	0.6357*	1				
Sig	0.0016	0.8842	0.6165	0.0063	0.0013	0.000	0.0293	0.000	0.000					
BAGE	0.6873*	-0.23	0.2723*	0.2703*	-0.2027	0.2657*	0.2669*	-0.1946	-0.3853*	-0.4339*	1			
Sig	0.000	0.0654	0.0282	0.0295	0.1054	0.0324	0.0316	0.1204	0.0015	0.0003				
BSIZE	0.7845*	-0.3318*	0.3836*	0.036	-0.4413*	0.4426*	0.0124	0.0142	-0.3315*	-0.4023*	0.6378*	1		
Sig	0.000	0.0069	0.0016	0.7757	0.0002	0.0002	0.9216	0.9105	0.007	0.0009	0.000			
BPROF	0.4955*	-0.0591	0.1325	0.3253*	-0.0377	0.2065	0.4490*	-0.0996	-0.3509*	-0.3394*	0.4146*	0.3063*	1	
Sig	0.000	0.6402	0.2927	0.0082	0.7659	0.0989	0.0002	0.4301	0.0042	0.0057	0.0006	0.0131		
BLEVE	0.2666*	-0.2422	0.3090*	-0.0925	-0.3301*	0.0935	-0.2944*	0.0672	0.0093	-0.0692	-0.0285	0.2985*	-0.3773*	1
Sig	0.0318	0.0519	0.0123	0.4637	0.0072	0.4589	0.0173	0.5946	0.9414	0.584	0.8217	0.0157	0.0019	

*Correlation is significant at the 0.05 level.

Where: TVDI=Total Voluntary Disclosure Index, BOIND=Board Independence, BOSIZE=Board Size, BOMEET=Board Meetings, ROLDU=Role Duality, ACFEX=Audit Committee Financial Expertise, ACMEET=Audit Committee Meetings, ACSIZE=Audit Committee Size, INSOWN=Institutional Ownership, BLCOWN=Blockholder Ownership, BAGE=Bank Age, BSIZE=Bank Size, BPROF=Bank Profitability, BLEVE=Bank Leverage

According to the Pearson correlation as illustrated in Table (5.14), there are significant correlations between the total voluntary disclosure (TVDI) and five corporate governance mechanisms at a confidence level of 95%. The Pearson correlation shows that voluntary disclosure is significantly and positively associated with Board Independence (BOIND) (0.2626), Board Size (BOSIZE) (0.4579), and Audit Committee Financial Expertise (ACFEX) (0.3636). In contrast, it shows that voluntary disclosure has significant negative relations with Institutional Ownership (INSOWN) (-0.3210) and Blockholder Ownership (BLCOWN) (-0.3836). With respect to other corporate governance mechanisms, Table (5.14) shows no significant relationships between them and voluntary disclosure. It also reveals that all bank characteristics have significant positive relationships with total voluntary disclosure (TVDI).

In the table (5.15), the results of Spearman's rank correlation show that there is a significant positive relationship between voluntary disclosure and just Audit Committee Financial Expertise (ACFEX) (0.4271). In opposition to this, the results show that voluntary disclosure is significantly and negatively related to Role Duality (ROLDU) (-0.2764), Institutional Ownership (INSOWN) (-0.4204), and Blockholder Ownership (BLCOWN) (-0.4212). Also, the Spearman's rank correlation results indicate that there are no significant relationships between other corporate governance mechanisms and voluntary disclosure. Regarding to bank characteristics, the Spearman's rank correlation supports the results of Pearson correlation, excepting the result of Bank Leverage (BLEVE).

Table 5. 15: *Spearman correlations of voluntary disclosure to corporate governance mechanisms and bank characteristics*

	TVDI	***BOIND***	***BOSIZE***	***BOMEET***	***ROLDU***	***ACFEX***	***ACMEET***	***ACSIZE***	***INOWN***	***BLCOWN***	***BAGE***	***BSIZE***	***BPROF***	***BLEVE***
TVDI	1													
BOIND	0.2219	1												
Sig	0.0757													
BOSIZE	0.1468	-0.8089*	1											
Sig	0.2434	0.000												
BOMEET	0.0372	0.5818*	-0.4509*	1										
Sig	0.7686	0.000	0.0002											
ROLDU	-0.2764*	0.3318*	-0.3452*	0.1545	1									
Sig	0.0258	0.0069	0.0049	0.2191										
ACFEX	0.4271*	0.1174	-0.1817	0.2436	-0.1414	1								
Sig	0.0004	0.3515	0.1475	0.0506	0.2612									
ACMEET	0.1267	0.5443*	-0.2962*	0.5912*	0.1909	0.1737	1							
Sig	0.3145	0.000	0.0166	0.000	0.1278	0.1663								
ACSIZE	-0.1308	-0.3384*	0.5102*	-0.4368*	0.1525	-0.3508*	-0.1631	1						
Sig	0.299	0.0058	0.000	0.0003	0.2252	0.0042	0.1943							
INOWN	-0.4204*	0.083	0.0652	-0.2206	0.3438*	-0.4785*	-0.1694	0.4953*	1					
Sig	0.0005	0.5108	0.6057	0.0774	0.005	0.0001	0.1773	0.000						
BLCOWN	-0.4212*	-0.0275	0.0269	-0.3469*	0.3638*	-0.5408*	-0.1702	0.6513*	0.6426*	1				
Sig	0.0005	0.8276	0.8314	0.0046	0.0029	0.000	0.1752	0.000	0.000					
BAGE	0.7029*	-0.2445*	0.2256	0.08	-0.198	0.1038	0.0241	-0.1329	-0.3577*	-0.2763*	1			
Sig	0.000	0.0496	0.0707	0.5262	0.1139	0.4107	0.8489	0.2912	0.0034	0.0259				
BSIZE	0.8641*	-0.2211	0.1721	0.0469	-0.3651*	0.4638*	0.005	-0.1419	-0.3495*	-0.4300*	0.6845*			
Sig	0.000	0.0767	0.1705	0.7105	0.0028	0.0001	0.9685	0.2596	0.0043	0.0004	0.000			
BPROF	0.5061*	-0.0128	-0.0924	0.2904*	-0.0496	0.2582*	0.3623*	-0.1973	-0.3887*	-0.3120*	0.3854*	0.3686*	1	
Sig	0.000	0.9191	0.4643	0.0189	0.6946	0.0378	0.003	0.1152	0.0014	0.0114	0.0015	0.0025		
BLEVE	0.0392	-0.1152	0.237	-0.1752	-0.2867*	0.049	-0.2167	0.097	0.0149	0.1373	-0.0866	0.0469	-0.4872*	1
Sig	0.7565	0.3607	0.0573	0.1626	0.0206	0.6984	0.0829	0.4423	0.9064	0.2755	0.4929	0.7105	0.000	

*Correlation is significant at the 0.05 level.

Where: TVDI=Total Voluntary Disclosure Index, BOIND=Board Independence, BOSIZE=Board Size, BOMEET=Board Meetings, ROLDU=Role Duality, ACFEX=Audit Committee Financial Expertise, ACMEET=Audit Committee Meetings, ACSIZE=Audit Committee Size, INSOWN=Institutional Ownership, BLCOWN=Blockholder Ownership, BAGE=Bank Age, BSIZE=Bank Size, BPROF=Bank Profitability, BLEVE=Bank Leverage

With regard to the correlations among independent and control variables, the results of Pearson and Spearman correlations show that there is a higher significant negative correlation between two independent variables, Board Independence (BOIND) and Board Size (BOSIZE), the Pearson correlation coefficient was (-0.7919) and the Spearman correlations coefficient was (-0.8089). According to Dancey & Reidy (2017), if the correlation coefficient between independent variables is 0.8 and more, that implies there is a strong correlation between them. However, the minimum correlation percentage acceptable that suggested by Tabachnick & Fidell (2013) is (0.70).

5.4.2. Multivariate Analysis

According to Kothari (2004, p. 315), the term 'multivariate analysis' refers to *"a collection of methods for analyzing data in which a number of observations are available for each object."* Multivariate analysis is a technique that focuses on the structure of simultaneous relations among three or more variables (Cooper & Schindler, 2014).

The multivariate analysis is deemed to be more appropriate to examine the collective impact of the extent of voluntary and corporate governance mechanisms. The multiple regression analysis was employed to investigate the relationship between the extent of voluntary disclosure and corporate governance mechanisms.

This analysis is utilized when there is one dependent variable which is supposed to be a function of two or more independent variables in order to make a forecast about the dependent variable based upon its covariance with all the independent variables (Kothari, 2004).

Before running the multiple regression analysis, it is necessary to test the assumptions of the regression analysis, these assumptions help to determine which the appropriate regression model should be adopted as well as whether the data need some adjustments (transformations). The assumptions that are necessary to be checked are: the Normality of the model, Homogeneity of Residuals, Multicollinearity and Autocorrelation (Gujarati & Porter, 2009; Tabachnick & Fidell, 2013). The following sections test these assumptions using STATA 15.1 software.

5.4.2.1. Checking the Normality

The normality should exist in each variable in the model. However, testing all linear combinations of all variables requires a large number of experiments, hence, this is not always considered practical (Hutcheson & Sofroniou, 1999). Rather than testing each variable alone, the linearity and variances of variables can be examined together by the residuals. Residuals may give extra information about the normality assumption by combinations of independent variables.

Jarque-Bera (JB) test is considered as one of the common tests for normality assumption of the panel data regression model. This test is based on the Ordinary Least Squares (OLS) residuals, it first calculates the skewness and kurtosis and measures of the OLS residuals (Gujarati & Porter, 2009).

The Table (5.16) shows the JB, Kolmogorov-Smirnov and Shapiro-Wilk tests, as well as the Skewness and Kurtosis tests of residuals. From the table, it can be observed that the statistics and P-values of JB, Kolmogorov-Smirnov and Shapiro-Wilk tests are not significant at the level of 0.05, as well as the skewness statistic value for normality assumption is between ± 1.96 and the kurtosis is within ± 3 (Haniffa & Hudaib, 2006) ,

and their P-values are greater than 0.05. The results in table (5.16) indicate that the null hypothesis cannot be rejected at the level of 0.05.

Table 5. 16: Results of tests the normality assumption of the model

Teat	Statistic value	P-value
Jarque-Bera (JB) test	0.3748	0.8291
Kolmogorov-Smirnov	0.053	0.200
Shapiro-wilk W test	0.9839	0.5578
Skewness test	-0.1645	0.5559
Kurtosis test	2.8265	0.9685

In addition, the Table (5.17) reveals the residuals statistics, It shows that the maximum value of the residuals was (0.0259835) and the minimum was (-0.0325656). Tabachnick & Fidell (2013) and Gujarati & Porter (2009) state that the normal distribution of errors means that the residuals in the model are random and normally distributed variables with a mean of zero. In this table, it can be observed that the mean of residuals is almost equal to zero.

Table 5. 17: Residuals Statistics

Variable	Mean	Max	Min	St. Deviation
Residuals	0.00000000000564	0.0259835	-0.0325656	0.013443

Graphically, Histogram and Standardized Normal Probability (P-P) Plot were employed to support the results of the previous numerical tests. They are presented in Figure (5.6) and Figure (5.7), respectively.

Figure 5. 6: Histogram of the model residuals

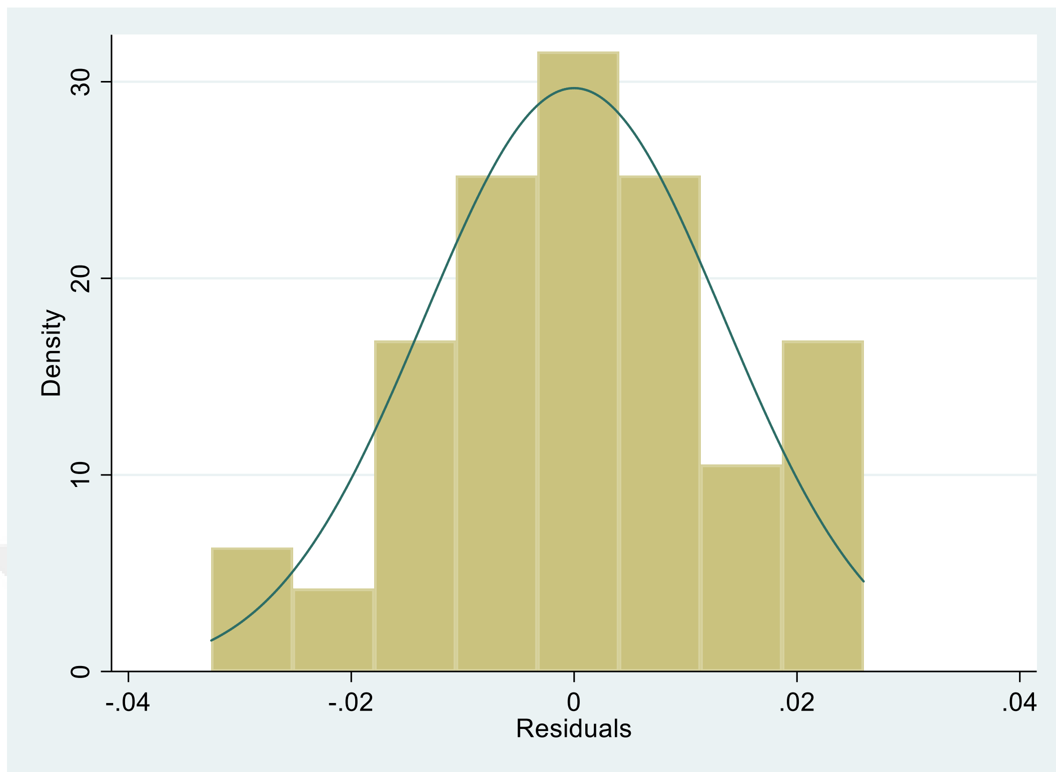
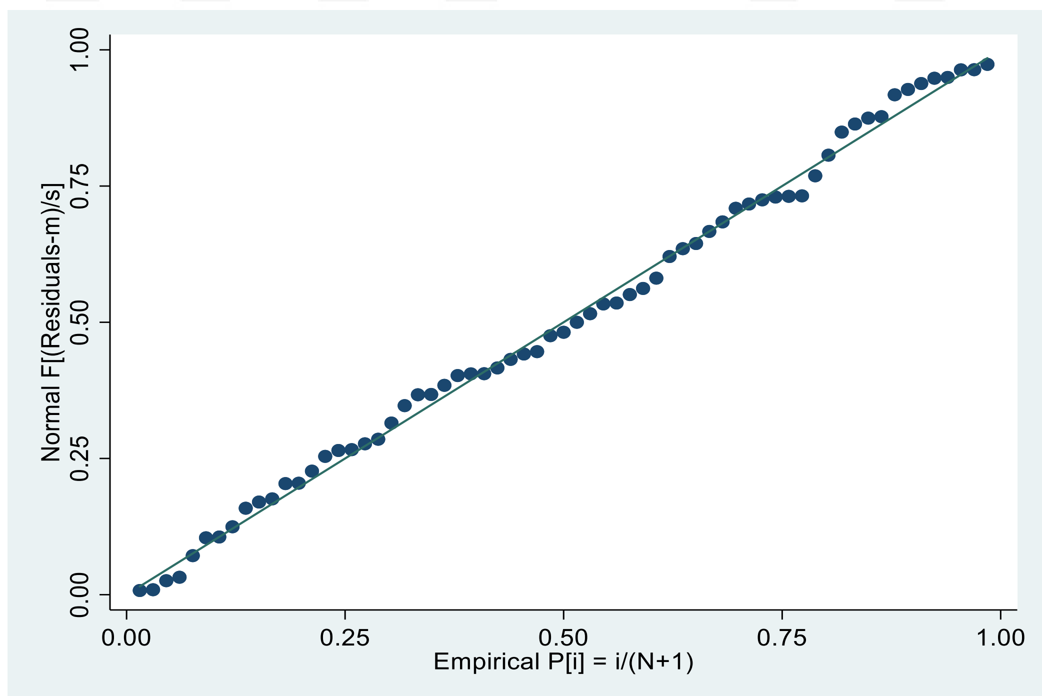


Figure 5. 7:: Standardized Normal Probability (P-P) Plot of the model residuals



The results in Tables (5.16) and (5.17), and Figures (5.6) and (5.7) showed that the assumptions of normality were met for the model residuals, implying that the residuals of the model are normally distributed.

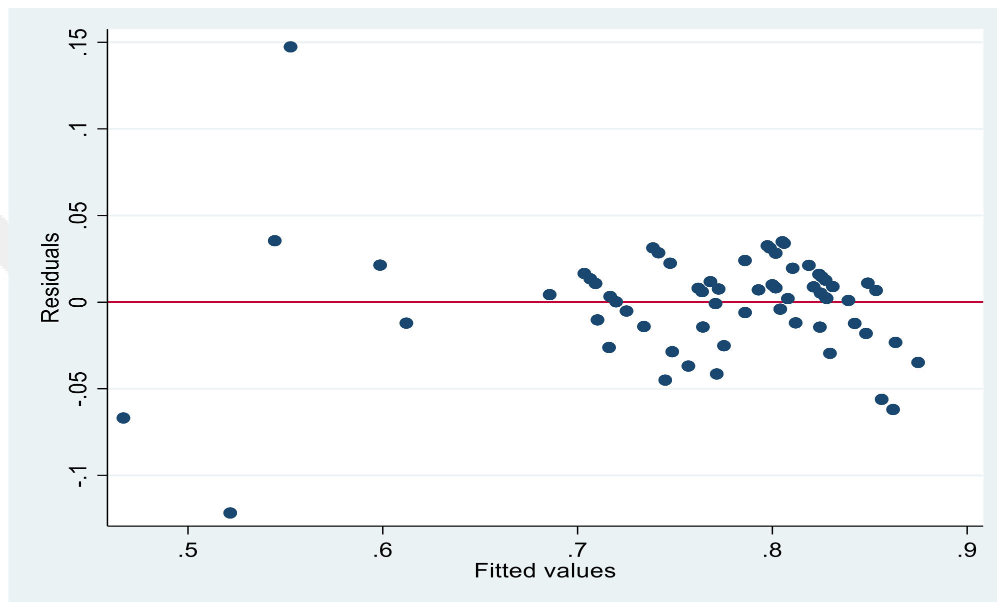
5.4.2.2. Testing Homogeneity of Residuals

Homoscedasticity, also called homogeneity of variance or constant variance, is one of the assumptions of Ordinary Least Squares (OLS) regression models, Homoscedasticity refers *to "the extent to which the data values for the dependent and independent variables have equal variances."* (Saunders et al., 2016, p. 548), while the term of Heteroscedasticity, the failure of homoscedasticity, refers to the different levels of variance or non-constant variance (Hutcheson & Sofroniou, 1999). Heteroscedasticity occurs either by non-normality of one of the variables or by the fact that one variable is linked to some transformation of the other (Tabachnick & Fidell, 2013). If the non-constant variance is accounted for, there will be more predictability, but if it is not, the results will be weakened but not invalidated (Tabachnick & Fidell, 2013).

In the current study, heteroscedasticity is tested by using Breusch-Pagan test. The Breusch-Pagan test is sensitive to and relies on the assumption of normality (Gujarati & Porter, 2009). In other words, this test is not biased if the residuals are normally distributed. The null hypothesis that the variance of the residuals is homogenous. Hence, if the p-value is smaller than 0.05, the null hypothesis will be rejected, meaning that the heteroscedasticity exists. The results of the Breusch-Pagan test indicated that the statistic value was (158.84), and the P-value = (0.0000), which implies that the null hypothesis was rejected and the variances are not constant.

Also, the graphical method is used to plot the residuals versus predicted (fitted) values and evaluates where the heteroscedasticity exists or not. From the Figure (5.8), it is observed that the pattern of the residuals is getting narrower toward the right side, which is an indication of the existing of a non-constant variance in the data.

Figure 5. 8: A plot of the residuals against the fitted values

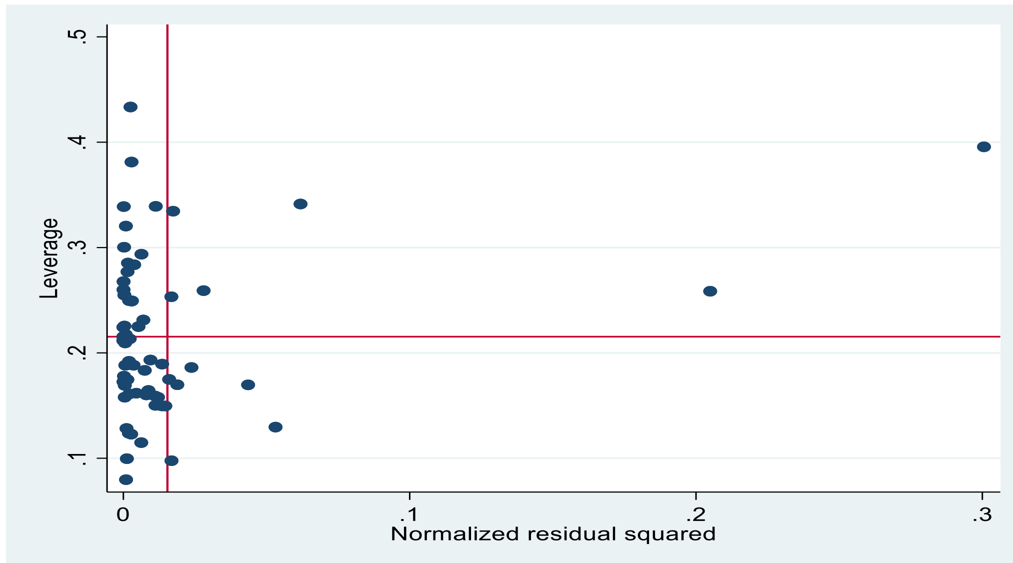


Another way to detect heteroscedasticity is checking for outliers. Gujarati & Porter (2009) indicate that heteroscedasticity can be caused by outliers. The term outlier generally refers to a value which is much higher, or much lower, than the central body of the data (Robson & McCartan, 2016).

To detect if there are outliers which probably caused the heteroscedasticity, the leverage (hate values) is applied using STATA 15.1. In the figure (5.9), the points lie above the horizontal line (the mean for the leverage) have higher values than the average of leverage, whilst the points on the right of the vertical line (the mean for the normalized residual squared) have larger values than the average of the residuals. From the figure, it is observed that there are some extreme points (outliers) that can cause the

heteroscedasticity. The inclusion or exclusion of the outliers may affect the results of the regression analysis, especially in the small samples (Gujarati & Porter, 2009).

Figure 5. 9: Leverage vs. Normalized Residual Squared Plot



According to the above numerical and graphical results, the data suffers from the problems of heteroscedasticity.

5.4.2.3. Multicollinearity Check

Multicollinearity is "an often encountered statistical phenomenon in which two or more independent variables in a multiple regression model are highly correlated." (Sekaran & Bougie, 2016, p. 316). If this association is perfect (equal to ± 1) or very strong (± 0.9), the computation of the regression model and the appropriate interpretation of the results can be affected and unreliable (Hutcheson & Sofroniou, 1999; Tabachnick & Fidell, 2013).

The Variance Inflation Factor (VIF), or tolerance, is the most common test for identifying multicollinearity. The larger the value of VIF, the more “troublesome” or

collinear the independent variable. As a rule, if the VIF of a variable exceeds 10, which happens if R^2 exceeds 0.90, that variable is considered to be highly collinear (Gujarati & Porter, 2009; Sekaran & Bougie, 2016).

From Table (5.18), it is observed that all values of VIF were less than 10, meaning that there is no multicollinearity between independent and control variables.

Table 5. 18: Results of the Variance Inflation Factor (VIF) of the independent and control variables

Variable	VIF	1/VIF	Result
Board Independence	6.97	0.143554	No Multicollinearity exists
Board Size	6.09	0.16415	No Multicollinearity exists
Blockholder Ownership	4.55	0.219815	No Multicollinearity exists
Bank Size	3.28	0.304784	No Multicollinearity exists
Audit Committee Size	2.71	0.369014	No Multicollinearity exists
Bank Age	2.69	0.37153	No Multicollinearity exists
Institutional Ownership	2.64	0.378428	No Multicollinearity exists
Board Meetings	2.39	0.417867	No Multicollinearity exists
Bank Profitability	2.22	0.451061	No Multicollinearity exists
Audit Committee Financial Expertise	2.21	0.453497	No Multicollinearity exists
Bank Leverage	1.93	0.518452	No Multicollinearity exists
Role Duality	1.83	0.547625	No Multicollinearity exists
Audit Committee Meetings	1.81	0.552852	No Multicollinearity exists
Mean VIF	**3.18**		

5.4.2.4 Testing for Autocorrelation

The linear regression model supposes that the autocorrelation must not exist in the disturbances (Gujarati & Porter, 2009). It is important to check the autocorrelation because if it exists, the results of the regression analysis are less likely to be reliable (Saunders et al., 2016). Autocorrelation, or serial correlation, occurs when there is a strong correlation among different observations, particularly where the observations are recorded during a period of time (Boslaugh & Watters, 2008). If the autocorrelation exists in the data, it will be readily apparent in the residuals after applying the linear model.

Boslaugh & Watters (2008, p. 278) indicate that *"in longitudinal and/or time series studies, autocorrelation will almost certainly be present."*

For testing autocorrelation, Gujarati & Porter (2009) indicate that there is no definite test has yet been judged to be unequivocally best (more powerful in the statistical sense). They also mention that the analysts are still in the unenviable position of considering a diverse number of test procedures for discovering the existence or structure, or both, of autocorrelation.

To test the autocorrelation, Wooldridge test for autocorrelation in panel data (first-order-autocorrelation) and Durbin–Watson (DW) test were applied. In the Wooldridge test, the null hypothesis that no serial correlation (no first-order-autocorrelation), and in the (DW) test, the statistic value ranges from (0) to (4). A value of (2) means no autocorrelation, a value towards (0) signals to positive autocorrelation. Whilst, a value towards (4) indicates negative autocorrelation (Saunders et al., 2016). The results of Wooldridge test show that the statistic F(1,12) = (3.784) and the P-value = (0.0456). Moreover, the value statistic of the (DW) test was (1.280).

The P-value of Wooldridge was (0.0456), thus, the null hypothesis is rejected at the significance level of 0.05. Also, the value statistic of the (DW) test was (1.280), it is not close enough to (2), which means that there is an autocorrelation (first-order-autocorrelation) problem among the observations, thus the autocorrelation problem exists.

5.4.2.5. Multiple Regression Analysis

The previous sections examined the assumptions of OLS regression. The results show that the normality assumption is met and there is no multicollinearity. In contrast, the results indicate that the data suffer from existing heteroscedasticity and autocorrelation.

It is realized that, in several applications of panel regression, the disturbance term may be both serially correlated and conditionally heteroscedastic (Boslaugh & Watters, 2008; Musau, Waititu, & Wanjoya, 2015). Gujarati & Porter (2009) point out that existing a heteroscedasticity and/or an autocorrelation in the data can invalidate the models analyzed by the Ordinary Least Squares (OLS) algorithm. They also mention that using OLS estimation, in such cases, can produce misleading results because it disregards and allows the heteroscedasticity and autocorrelation. Bentes & Menezes (2013) indicate that some characteristics of the financial data make problems when choosing the OLS estimator including endogeneity, the persistence of the predictor, and heteroscedasticity. They found that OLS becomes biased and inefficient. Therefore, the OLS estimation model is inefficient and fails to be the Best Linear Unbiased Estimator (BLUE) (Ghasempour & MdYusof, 2014; Gourieroux & Monfort, 1997; Gujarati & Porter, 2009; O'Hara & Parmeter, 2013), and thus the statistical results would be unreliable (Ghasempour & MdYusof, 2014).

It is recommended that the alternative other regression algorithms, such as Generalized Least Squares (GLS), can be applied when the assumption of homoscedasticity is routinely violated and/or existing of autocorrelation (Aljandali & Tatahi, 2018; Boslaugh & Watters, 2008; Gourieroux & Monfort, 1997). GLS is

commonly designed to provide an optimal unbiased estimator of (β) for the position with heterogeneous variance (Musau et al., 2015). It is therefore able to provide efficient estimators that are BLUE (Gujarati & Porter, 2009; O'Hara & Parmeter, 2013). In the case of autocorrelation, Gujarati & Porter (2009, p. 423) report that *"The message is: To establish confidence intervals and to test hypotheses, one should use GLS and not OLS even though the estimators derived from the latter are unbiased and consistent."* Also, they indicate that, in the presence of autocorrelation, the usual inference procedure based on the t, F, and x^2 tests are no longer appropriate.

Since heteroscedasticity commonly characterizes the financial data (Bentes & Menezes, 2013), Cameron & Trivedi (2009) and Westerlund & Narayan (2012) suggested Feasible Generalized Least Squares (FGLS) model to avoid the inefficiency that arises by heteroscedasticity. Bentes & Menezes (2013) found that the FGLS estimator accounts for some financial data features and, therefore, works better than OLS-based estimators, as shown by many of their results. Westerlund & Narayan (2015) found that the FGLS model does not require a large number of observations to work properly; according to their results, 50 observations are enough. Miller & Startz (2018) point out that the FGLS produces estimators that are efficient, especially if the observations are 50 or more. They mention that, in the existence of heteroscedasticity, FGLS presents potentially large efficiency benefits even without knowledge of its functional form. It also presents a consistent estimator of the unknown regression parameters (O'Hara & Parmeter, 2013), as well as allows more precise estimation of parameters and marginal impacts (Cameron & Trivedi, 2009).

Based on the discussion above, this study employed the (FGLS) regression model with AR(1) process (the first order autocorrelation equation) to treat the

heteroscedasticity problem and to obviate the autocorrelation. The AR(1) equation is a linear model which forecasts the current value of the time series by utilizing the immediately previous value in time. Aljandali & Tatahi (2018) recommended that if the time series suffers from autocorrelation, it is useful to perform the first difference equation (AR (1)); this equation will be free of autocorrelation. Using the AR(1) process has proved to be quite useful in many applications, as well as, a large number of theoretical and empirical work has been done on the AR(1) scheme (Gujarati & Porter, 2009). Cameron & Trivedi (2009) reported that in the presence of the heteroskedastic and AR(1) errors, the FGLS estimator can be computed as the OLS estimator in a model transformed to have homoscedastic uncorrelated errors.

By using the FGLS regression with AR(1) in the study model, the problems of heteroscedasticity and autocorrelation were avoided. The results of the FGLS regression model with AR(1) show that the Wald chi2(13) = (335.05) and the P-value of the regression model is highly significant (0.0000). Table (5.19) shows the results of the FGLS longitudinal panel regression with the AR(1).

Table 5. 19: Results of the FGLS longitudinal panel regression with the AR(1) process

TVDI	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
BOIND	.314768	.1350274	2.33	0.020	.0501191	.5794168
BOSIZE	.0152915	.0042816	3.57	0.000	.0068998	.0236832
BOMEET	.0002393	.0004829	0.50	0.620	-.0007071	.0011857
ROLDU	-.0014777	.0206732	-0.07	0.943	-.0419964	.039041
ACFEX	.074822	.0205902	3.63	0.000	.0344661	.115178
ACMEET	.0013902	.0006783	2.05	0.040	.0000607	.0027197
ACSIZE	.0099579	.006929	1.44	0.151	-.0036227	.0235385
INOWN	.0049836	.0415474	0.12	0.905	-.0764479	.086415
BLCOWN	.0163726	.0412561	0.40	0.691	-.064488	.0972331
BAGE	.0681917	.0188127	3.62	0.000	.0313194	.105064
BSIZE	.0252146	.0058338	4.32	0.000	.0137806	.0366487
BPROF	3.310226	1.053907	3.14	0.002	1.244607	5.375846
BLEVE	1.066837	.2495539	4.27	0.000	.5777204	1.555954
_cons	-1.445264	.2272904	-6.36	0.000	-1.890745	-.9997833

Where: TVDI=Total Voluntary Disclosure Index, BOIND=Board Independence, BOSIZE=Board Size, BOMEET=Board Meetings, ROLDU=Role Duality, ACFEX=Audit Committee Financial Expertise, ACMEET=Audit Committee Meetings, ACSIZE=Audit Committee Size, INSOWN=Institutional Ownership, BLCOWN=Blockholder Ownership, BAGE=Bank Age, BSIZE=Bank Size, BPROF=Bank Profitability, BLEVE=Bank Leverage.

The following paragraphs discuss these results on the basis of research hypotheses.

- **H1: Board Independence (BOIND) and Voluntary Disclosure (TVDI)**

This hypothesis postulates that *"The level of voluntary disclosure is positively associated with the proportion of independent directors on the board."* The results of the FGLS regression model as displayed in Table (5.19) show that there is a significant positive relationship between the proportion of independent directors on the board and the level of voluntary disclosure at the significance level of (0.05). The P-value was (0.020) and the regression coefficient is (0.314), which meaning that the level of voluntary disclosure is positively associated with the proportion of independent directors on the board, thus the hypothesis **is accepted**.

In the relevant literature, several studies found the same result (e.g. Akhtaruddin, Hossain, Hossain, & Yao, 2009; Babío Arcay & Muiño Vázquez, 2005; Cerbioni & Parbonetti, 2007; Cheng & Courtenay, 2006; Donnelly & Mulcahy, 2008; Gisbert & Navallas, 2013; Grassa & Chakroun, 2016; Huafang & Jianguo, 2007; Uyar et al., 2013)

- **H2: Board Size (BOSIZE) and Voluntary Disclosure (TVDI)**

It can be observed that from Table (5.19), the coefficient of board size (BOSIZE) is (0.0152) and the P-value is (0.000) meaning that the relationship between board size and voluntary disclosure is significant and positive at the significance level of 0.05. As a result, **we accept** the hypothesis 2 that assumes *"The level of voluntary disclosure is positively associated with the number of the board of directors."*

This result is consistent with Akhtaruddin et al. (2009), Allegrini & Greco (2013), Htay (2012) and Rouf (2011).

- **H3: Board Meetings (BOMEET) and Voluntary Disclosure (TVDI)**

According to this hypothesis, "*The level of voluntary disclosure is positively associated with the number of board meetings."* From the results in the table above, it can be seen that there is no significant relationship between board meetings and voluntary disclosure. The coefficient is (0.0002) and the P-value is (0.620), meaning that there is no association between board meetings and voluntary disclosure at the significance level of 0.05. Therefore, this hypothesis "*The level of voluntary disclosure is positively associated with the number of board meetings* " **is rejected.**

The result is consistent with Albawwat & Basah (2015) who found the same result that there is no significant relationship between the frequency of board meetings and voluntary disclosure of interim financial reporting in Jordan.

- ***H4:* Role Duality (ROLDU) and Voluntary Disclosure (TVDI)**

Although the results of Spearman correlation matrix show that Role Duality (ROLDU) has a negative relationship with the extent of Voluntary Disclosure (TVDI), the results of the FGLS regression model as presented in Table (5.19) show no significant relationship between the (ROLDU) and (TVDI). The regression coefficient for the explanatory variable (ROLDU) is (-0.00148) and the P-value is (0.943). Accordingly, **we reject** H4 that presumes *"The level of voluntary disclosure is negatively associated with role duality."*

This result coincides with disclosure Al-Shammari & Al-Sultan (2010), Cheng & Courtenay (2006), Haniffa & Cooke (2002), Hieu & Lan (2015), Khodadadi et al. (2010), Ramadhan (2014, and Yuen et al. (2009).

- ***H5:* Audit Committee Financial Expertise (ACFEX) and Voluntary Disclosure (TVDI)**

Both the results of Pearson and Spearman correlation indicate that there is a positive correlation between audit committee financial expertise (ACFEX) and voluntary disclosure (TVDI). The result of FGLS regression supports the Pearson and Spearman results. Table (5.19) shows that the coefficient of ACFEX is (0.074822) and the P-value is (0.000) which implying that there is a positive relationship between (ACFEX) and voluntary disclosure (TVDI). Hence, *H5: "The level of voluntary disclosure is positively associated with audit committee financial expertise"* **is strongly accepted.**

The prior studies that have found the same result were conducted by Akhtaruddin & Haron (2010) and Johl, Jackling, & Kothalawala (2011)

- ***H6:* Audit Committee Meetings (ACMEET) and Voluntary Disclosure (TVDI)**

According to the FGLS regression results in the table (5.19), there is a significant positive relationship between audit committee meetings (ACMEET) and the extent of voluntary disclosure (TVDI) at the significance level of 0.05 (p = 0.040) and the coefficient = (0.00139). Therefore, **we accept** H6 "*The level of voluntary disclosure is positively associated with the number of audit committee meetings*."

This result corroborates with the study of Allegrini & Greco (2013) who found that the regularity of the audit committee meetings is positively associated with the amount of voluntary disclosure. Also, the same result was found by Persons (2009) who found that the more meetings of the audit committee, the more details in disclosure.

- ***H7:*** **Audit Committee Size (ACSIZE) and Voluntary Disclosure (TVDI)**

This hypothesis supposes that *"The level of voluntary disclosure is positively associated with the number of members of the audit committee."* From the table (5.19), it can be observed that the P-value of the audit size (ACSIZE) is (0.151) and the coefficient is equal to (0.0099) this indicates that the relationship between audit size and voluntary disclosure is insignificant at the significance level of 0.05. Thus, this hypothesis **is rejected.**

Akhtaruddin et al. (2009) found the same result that the size of the audit committee does not influence the level of voluntary disclosure. Also, Ramadhan (2014) found that there is no association between audit committee size the extent of voluntary disclosure.

- ***H8:*** **Institutional Ownership (INOWN) and Voluntary Disclosure (TVDI)**

Although the results of Pearson and Spearman correlation show a negative relationship between institutional ownership (INOWN) and voluntary disclosure (TVDI), the results of FGLS regression in the table (5.19) show no relationship between (INOWN) and (TVDI), the coefficient is (0.004983) and (p = 0.905), meaning that H8 *"The level of voluntary disclosure is positively associated with the proportion of institutional ownership"* **is strongly rejected**.

The same result was found by Matoussi & Chakroun (2009) who found that the coefficient of institutional ownership was positive but not significant.

- ***H9:* Blockholder Ownership (BLCOWN) and Voluntary Disclosure (TVDI)**

This hypothesis postulates that " *The level of voluntary disclosure is negatively associated with blockholder ownership."* This hypothesis **is rejected** because the FGLS results in the table (5.19) show that there is no significant relationship between blockholder ownership (BLCOWN) and voluntary disclosure (TVDI). The P-value is (0.691) and the coefficient = (0.01637).

This result is consistent with Eng & Mak (2003) who found that blockholder ownership is not related to voluntary disclosure.

- **Bank Characteristics (Control Variables) and Voluntary Disclosure (TVDI)**

The results of the FGLS regression in the table (5.19) show that all bank characteristics are strongly and positively associated with voluntary disclosure. The coefficient of bank age (BAGE) was (0.06819) and the P-value was (0.000). The coefficient and the P-value of bank size (BSIZE) were (0.025214) and (0.000) respectively. Also, the P-value of bank profitability (BPROF) and bank leverage (BLEVE) were (0.000) and (0.002) respectively, while their coefficients were (3.31022) and (1.06683).

In conclusion, the Table (5.20) displays the summary of hypotheses results based on FGLS regression.

Table 5. 20: Summary of hypotheses results

Hypothesis	Expected Sign	Finding Sign	Coefficient	P-value	Decision
H1: Board Independence (BOIND)	+	+	0.314768	0.020*	accepted
H2: Board Size (BOSIZE)	+	+	0.0152915	0.000*	accepted
H3: Board Meetings (BOMEET)	+	+	0.0002393	0.620	rejected
H4: Role Duality (ROLDU)	-	-	- 0.0014777	0.943	rejected
H5: Audit Committee Financial Expertise (ACFEX)	+	+	0.074822	0.000*	accepted
H6: Audit Committee Meetings (ACMEET)	+	+	0.0013902	0.040*	accepted
H7: Audit Committee Size (ACSIZE)	+	+	0.0099579	0.151	rejected
H8: Institutional Ownership (INOWN)	+	+	0.0049836	0.905	rejected
H9: Blockholder Ownership (BLCOWN)	-	+	0.0163726	0.691	rejected

* at the significance level of 0.05.

CHAPTER 6: SUMMARY AND CONCLUSION

6.1. Overview

In recent years, disclosure and corporate governance are considered two important correlative instruments for protecting the investor and the functioning of the capital markets. Many theories and corporate guidelines state that good corporate governance systems will develop the disclosure because it has a positive influence on the high quality of disclosure, hence reducing opportunistic behaviors and lower information asymmetry. Also, unfeigned and all-around information disclosure can enhance the continual improvement of corporate governance.

The financial and non-financial information are helpful for decision makers. Investors and other users seek to invest in the markets that have a higher degree of disclosure and transparency. Investors favor markets that require listed firms to present full information to assure the accessibility of information to all investors at the same time.

The value of the disclosure of information in the annual reports has been spotlighted as one of the important facets of good corporate governance practices. Basel Committee on Banking Supervision (BCBS) indicates that information disclosure is important because it is the essence of corporate governance. Furthermore, it declares that voluntary information disclosure is required to indicate the performance of the corporation, to reduce the information asymmetry, to define the conflict of interests between the shareholders and managers and to make corporate insiders accountable. More voluntary information in the annual reports will increase transparency, decrease opportunistic behaviors, and information asymmetry. Furthermore, management will not be able to hold important information for their interest.

Corporate governance in the banking sector is considered to be more important than the other sectors because of its role as a crucial financial intermediary. Some theoretical studies recommended that good corporate governance of banks needs a somewhat different framework from other types of industries.

The main objective of this thesis is to measure the extent of voluntary disclosure and examine its relationship with the internal corporate governance mechanisms. This chapter contains the summary and conclusion of the study. Section (6.2) reviews the research questions and objectives. Section (6.3) summarizes the research methodology. Section (6.4) outlines the main results and conclusions of the study.

6.2. The Research Questions and Objectives

The current study seeks to answer the following questions:

1. What is the extent of voluntary information disclosure in the annual reports of Listed Banks in Borsa Istanbul during the period from 2013 to 2017?
2. Is there any significant improvement in the voluntary disclosure level in the annual reports of Listed Banks in Borsa Istanbul during the period from 2013 to 2017?
3. What is the extent of the relationship, if any, between each of the internal corporate governance mechanisms and voluntary disclosure in Listed Banks in Borsa Istanbul?

This study also aims to achieve the following objectives:

1. To evaluate the level of voluntary disclosure in the annual reports of Listed Banks in Borsa Istanbul during the period from 2013 to 2017.

2. To investigate if there is any significant improvement in the voluntary disclosure level in the annual reports of Listed Banks in Borsa Istanbul during the study period.

3. To examine if there is any significant relationship between the internal corporate governance mechanisms (i.e., the board of directors characteristics, audit committee characteristics, and ownership structure), and the voluntary disclosure level in the annual reports during the period.

6.3. Summary of the Research Methodology

This study adopted the deductive approach and quantitative research design. Since the source of data is the annual reports, the archival and documentary research was adopted in this study. The data is collected across a number of years (from 2013 to 2017); therefore, a longitudinal research procedure is also adopted. Also, the content analysis technique was applied in this study. To measure voluntary disclosure, this study adopted an unweighted voluntary disclosure index. A scoring sheet (checklist) was developed to assess the extent of voluntary disclosure and assigned a score of (1) if a checklist item is disclosed and (0) if not. The sample of the study represents the whole listed banks (13 banks) in Borsa Istanbul (BIST BANKS) until the end of 2017. The data was gathered from the annual reports of these banks during the period from 2013 to 2017.

The univariate statistical analysis, such as average, minimum, maximum, standard deviation, and correlation analysis is conducted to analyze and interpret the quantitative data. In addition, the multivariate Feasible Generalized Least Squares (FGLS) regression model is applied to examine the association between the extent of voluntary disclosure and corporate governance and control variables

6.4. Results and Conclusions of the Study

This section contains a summary of the main empirical results reported in chapter five. It is divided into three subsections; the subsection (6.4.1) summarizes the findings of measuring the total level of voluntary disclosure in the annual reports of listed banks in Borsa Istanbul. The subsection (6.4.2) contains an overview of the results of evaluating the level of categories of voluntary disclosure. The last subsection (6.4.3) outlines the main results of examining the relationship between the extent of voluntary disclosure and corporate governance mechanisms.

6.4.1. The Main Results of Measuring the Total Level of Voluntary Disclosure

To measure the level of voluntary disclosure over the five years period (2013-2017), this study developed a self-constructed un-weighted voluntary disclosure index, consistent with previous research, containing 64 items. The index was split into six categories: (1) General and Strategic Information (17 items); (2) Directors and Managers Information (15 items); (3) Social Responsibility Information (6 items); (4) Financial Performance (15 items), (5) Accounting Policies (7 items), and (6) Other Information (4 items).

The analysis results showed that the average score of the total voluntary disclosure in the annual reports of listed banks in Borsa Istanbul over the five-year period was high, with an overall average of (77%), with a range between 52% reported by ICBCT bank, and 85% achieved by ISATR. The findings also revealed that there was a permissible

variation in the average of overall voluntary disclosure scores among most of the banks over the period of study.

In addition, the results indicated that the total level of voluntary disclosure by listed banks in Borsa Istanbul has increased during the period. The average of the level of voluntary in 2013 was 75%. In 2017, it increased to 78%. Also, the study has investigated whether there are any significant developments in the overall level of voluntary disclosure in the annual reports of listed banks in Borsa Istanbul from 2013 to 2017. The result of the Friedman test indicated that there is a significant increase in the total voluntary disclosure level during the study period.

6.4.2. The Results of Evaluating the Level of Voluntary Disclosure Categories

In order to analyze the extent of voluntary disclosure in more details, the study has examined the level of voluntary disclosure by its categories. As mentioned above, the self-constructed voluntary disclosure index includes 64 items which classified into six categories according to their nature.

The results showed that there is a difference in the averages of the extent of the voluntary disclosure in each of the six categories over the period. Directors and management information and accounting policy represented the highest means of voluntary disclosure categories with an average of 87%, followed by general and strategic information 75% and financial performance 74%, whilst social responsibility information and other information represented the lowest means of voluntary disclosure categories with averages of 65% and 45% respectively.

6.4.3. Results of Examining the Relationship between Internal Corporate Governance Mechanisms and the Extent of Voluntary Disclosure

To examine the relationship between the extent of voluntary disclosure in annual reports and internal corporate governance mechanisms (i.e. board independence, board size, board meetings, role duality, audit committee financial expertise, audit committee meetings, audit committee size, institutional ownership, and blockholder ownership), nine hypotheses were formulated (see section 4.2 in chapter 4). This study applied both univariate and multivariate analyses to test research hypotheses.

- **Univariate Analyses Results**

The findings of the Pearson correlation showed that the extent of voluntary disclosure is significantly and positively associated with Board Independence, Board Size, and Audit Committee Financial Expertise. In contrast, it showed that the extent of voluntary disclosure has significant negative relations with Institutional Ownership and Blockholder Ownership. It also indicated that there are no significant relationships between other corporate governance mechanisms and voluntary disclosure.

According to the results of Spearman's rank correlation, there is a significant positive relationship between the extent of voluntary disclosure and just Audit Committee Financial Expertise. In opposition to this, the results showed that the extent of voluntary disclosure is significantly and negatively related to Role Duality, Institutional Ownership, and Blockholder Ownership.

With respect to bank characteristics, both the Pearson correlation and the Spearman's rank correlation revealed that all bank characteristics have significant

positive relationships with the extent of voluntary disclosure; excepting the result of Bank Leverage according to Spearman's rank correlation.

- **Multivariate Analysis Results**

Because of existing the heteroscedasticity and autocorrelation in the research data, the current study adopted the multivariate FGLS regression model. The results of the FGLS regression indicated that four independent variables, namely Board Independence, Board Size, Audit Committee Financial Expertise, and Audit Committee Meetings, were significant in explaining the variations in the level of voluntary disclosure in the annual reports of listed banks in Borsa Istanbul over the period of the study, whilst the results of FGLS showed that the other variables were insignificant.

Overall, the findings of this study are consistent with the evidence reported by most previous studies.

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Appendix No. 1: Items of Voluntary Disclosure Index

1. General and Strategic Information (17):	
1.1	A brief narrative history of the bank
1.2	General information about the economic environment
1.3	Information about the banking sector
1.4	Year of listing at Borsa Istanbul
1.5	Description of major services
1.6	Address of bank/telephone/fax
1.7	Bank website address
1.8	Email address
1.9	Date and details of establishment
1.10	General outlook of business activities
1.11	Number of branches
1.12	List of branches location
1.13	Dividend policy
1.14	Information on ATM
1.15	Statement of overall strategies and objectives
1.16	Future strategy
1.17	Information about market share
2. Directors and Managers Information (15):	
2.1	Chairman of the board identified
2.2	List of board members
2.3	Disclosure information on board members' qualifications and experience
2.4	Duties of board of members
2.5	List of senior managers (not on the board of members)/ senior management structure
2.6	Disclosure information on senior managers' qualifications and experience
2.7	Managers' engagement/directorship of other companies
2.8	Picture of all senior managers
2.9	Picture of chairperson
2.10	Information about changes in board members
2.11	Classification of managers as executive or outsider
2.12	Details of senior managers and board of members remuneration
2.13	Shares held by directors
2.14	Chairman's statement
2.15	Number of board meetings held and date
3. Social Responsibility Information (6):	
3.1	Environmental and social policies
3.2	Sponsoring public health
3.3	Sponsoring sport activities
3.4	Sponsoring cultural recreations
3.5	Sponsoring education
3.6	Charitable donations and aid
4. Financial Performance (15):	

4.1	Brief discussion of the bank’s operating results
4.2	Analysis of bank’s liquidity position
4.3	Return on assets
4.4	Share price at the year-end
4.5	Return on equity
4.6	Liquidity coverage ratio
4.7	Earnings per share
4.8	Capital adequacy ratio
4.9	Loan to deposit ratio
4.10	Total dividends
4.11	Dividend per share for the period
4.12	Comparative Income statement for 2 years
4.13	Comparative balance sheet for 2 years
4.14	Comparative current year and previous year figures
4.15	Inflation effects
5. Accounting Policies (7):	
5.1	Accounting Valuation of fixed assets (e.g., fair value or historical cost)
5.2	The depreciation methods used
5.3	Foreign currency transactions, translation and differences treatment
5.4	Disclosure of accounting standards uses for its accounts
5.5	Statements of compliance with approved IFRS/IASs
5.6	Treatment of Tax
5.7	Treatment of contingent liabilities.
6. Other Information (4):	
6.1	Statement of percentage of total shareholder of 20 largest shareholders
6.2	A review of shareholders by type (for example, institutions, individuals, ..., etc)
6.3	Number of shareholders
6.4	Dividend declared
64	**Total**

Appendix No. 2: Scoring the Research Variables

Scoring Sheet

Name of the Bank:

Established in Year:

A. <u>Independent Variables (Corporate Governance Mechanisms):</u>

Variable No 1: Board Independence (BOIND):

Proportion of independent (non-executive) directors on the board	2013	
	2014	
	2015	
	2016	
	2017	

Variable No 2: Board Size (BOSIZE):

The number of board members.	2013	
	2014	
	2015	
	2016	
	2017	

Variable No 3: Board Meetings (BOMEET):

Total number of board meetings per year	2013	
	2014	
	2015	
	2016	
	2017	

Variable No 4: Role Duality (ROLDU):

Dummy variable; (1) if bank's CEO serves as a board chairman, (0) otherwise	2013	
	2014	
	2015	
	2016	
	2017	

Variable No 5: Audit Committee Financial Expertise (ACFEX):

The percentage of audit committee members who have a qualification or an expertise in accounting, auditing or finance	2013	
	2014	
	2015	
	2016	
	2017	

Variable No 6: Audit Committee Meetings (ACMEET):

Total number of Audit committee meetings per year	2013	
	2014	
	2015	
	2016	
	2017	

Variable No 7: Audit Committee Size (ACSIZE):

Total number of directors on the audit.	2013	
	2014	
	2015	
	2016	
	2017	

Variable No 8: Institutional Ownership (INSOWN):

Percentage of shares owned by institutional investors to the total number of shares issued	2013	
	2014	
	2015	
	2016	
	2017	

Variable No 9: Blockholder Ownership (BLCOWN):

The proportion of ordinary shares owned by substantial shareholders (with equity of 5% or more of total number of shares issued)	2013	
	2014	
	2015	
	2016	
	2017	

B. Control Variables (Some Bank Characteristics):

Bank Age (BAGE):

Natural logarithm of the number of years from inception until 2017, ln (bank age + 1)	2013	
	2014	
	2015	
	2016	
	2017	

Bank Size (BSIZE):

Natural logarithm (ln) of total assets	2013	
	2014	
	2015	
	2016	
	2017	

Bank Profitability (BPROF):

ROA = Net income / average of total assets	2013	
	2014	
	2015	
	2016	
	2017	

Bank Leverage (BLEVE):

Ratio of total debt to total assets.	2013	
	2014	
	2015	
	2016	
	2017	

C. Dependent Variable (Voluntary Disclosure Items in Annual Reports):

1. General and Strategic Information (17):		2013	2014	2015	2016	2017
1.1	A brief narrative history of the bank					
1.2	General information about the economic environment					
1.3	Information about the banking sector					
1.4	Year of listing at Borsa Istanbul					
1.5	Description of major services					
1.6	Address of bank/telephone/fax					
1.7	Bank website address					
1.8	Email address					
1.9	Date and details of establishment					
1.10	General outlook of business activities					
1.11	Number of branches					
1.12	List of branches location					
1.13	Dividend policy					
1.14	Information on ATM					
1.15	Statement of overall strategies and objectives					
1.16	Future strategy					
1.17	Information about market share					
2. Directors and Managers Information (15):		**2013**	**2014**	**2015**	**2016**	**2017**
2.1	Chairman of the board identified					
2.2	List of board members					
2.3	Disclosure information on board members' qualifications and experience					
2.4	Duties of board of members					
2.5	List of senior managers (not on the board of members)/ senior management structure					
2.6	Disclosure information on senior managers' qualifications and experience					
2.7	Managers' engagement/directorship of other companies					
2.8	Picture of all senior managers					
2.9	Picture of chairperson					
2.10	Information about changes in board members					
2.11	Classification of managers as executive or outsider					
2.12	Details of senior managers and board of members remuneration					
2.13	Shares held by directors					
2.14	Chairman's statement					
2.15	Number of board meetings held and date					

3. Social Responsibility Information (6):		2013	2014	2015	2016	2017
3.1	Environmental and social policies					
3.2	Sponsoring public health					
3.3	Sponsoring sport activities					
3.4	Sponsoring cultural recreations					
3.5	Sponsoring education					
3.6	Charitable donations and aid					
4. Financial Performance (15):		**2013**	**2014**	**2015**	**2016**	**2017**
4.1	Brief discussion of the bank's operating results					
4.2	Analysis of bank's liquidity position					
4.3	Return on assets					
4.4	Share price at the year-end					
4.5	Return on equity					
4.6	Liquidity coverage ratio					
4.7	Earnings per share					
4.8	Capital adequacy ratio					
4.9	Loan to deposit ratio					
4.10	Total dividends					
4.11	Dividend per share for the period					
4.12	Comparative Income statement for 2 years					
4.13	Comparative balance sheet for 2 years					
4.14	Comparative current year and previous year figures					
4.15	Inflation effects					
5. Accounting Policies (7):		**2013**	**2014**	**2015**	**2016**	**2017**
5.1	Accounting Valuation of fixed assets (e.g., fair value or historical cost)					
5.2	The depreciation methods used					
5.3	Foreign currency transactions, translation and differences treatment					
5.4	Disclosure of accounting standards uses for its accounts					
5.5	Statements of compliance with approved IFRS/IASs					
5.6	Treatment of Tax					
5.7	Treatment of contingent liabilities.					
6. Other Information (4):		**2013**	**2014**	**2015**	**2016**	**2017**
6.1	Statement of percentage of total shareholder of 20 largest shareholders					
6.2	A review of shareholders by type (for example, institutions, individuals, ..., etc)					
6.3	Number of shareholders					
6.4	Dividend declared					
64	**Total**	**64**	**64**	**64**	**64**	**64**