Accounting, Finance, Sustainability, Governance & Fraud: Theory and Application

Kıymet Tunca Çalıyurt *Editor*

Ethics and Sustainability in Accounting and Finance, Volume I

Accounting, Finance, Sustainability, Governance & Fraud: Theory and Application

Series editor

Kıymet Tunca Çalıyurt, Trakya University, Balkan Yerleşkesi, Edirne, Turkey

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Kıymet Tunca Çalıyurt
Editor

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Preface

This book is written to examine and discuss the growing problem of ethical behavior in accounting and finance. We needed to open the book in the ethics area. Violations of ethical behavior continue to increase in the areas of accounting and finance, especially in virtual environments. In this book series, academicians will discuss ethical issues of culture, religion, technology, socially differentiated accounting, and finance.

This work is the product of the last two years of IGONGFESR members. Since 2009, International Conference on Governance Fraud Ethics and CSR has been organized in Turkey, Canada, and Malaysia. In 2018, we organize a conference series in India. We hope to go on to publishing new volumes in this series on ethics.

http://nludelhi.ac.in/icongfesr/index.html

> Unethical business practices harm organizations and economies. Large-scale business failures such as Enron—as well as the more recent failures related to the global financial crisis—highlight the consequences of unethical business practices and amoral management. Professional accountants, as stewards of transparency and trust, and subject to a professional code of ethics, have a key role to play not only in upholding but also in encouraging and influencing ethical behavior and decision making within their organizations.
>
> International Federation of Accountant

Edirne, Turkey Kıymet Tunca Çalıyurt

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Many of the institutions, notably the International Federation of Accountants (IFAC), have gone to the new regulations for the reasons of the fraud that happened in the early 2000s on the accounting profession. In the business world, fraud prevention has become a new field of education, economy, and service. In this book, ethics and sustainability are discussed with different dimensions in accounting.

I would like to thank each one of the authors for their contributions. Our sincere gratitude goes to the chapter's authors who contributed their time and expertise to this book.

I would like to express my sincere gratitude to our member of the International Group on Governance Fraud Ethics and CSR. This group performed eight successful conferences in Turkey, Canada, and Malaysia. The 2018 conference will be organized at National Law University, New Delhi, India.

Of course, we have to say big thanks to our Book Series Editor, William Achauer, Business/Economics Editor, Springer, Singapore, and his group from editing to publishing.

Finally, we would like to share our motto with readers for the more ethical world:

> There is a different viewpoint of ethics from different religions and cultures but the thief is the thief everywhere.

Kıymet Tunca Çalıyurt, CFE, CPA
Editor

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Part I
Overview

Chapter 1
Introduction: Why Do We Need to Discuss on Ethics, Sustainability in Accounting

Kıymet Tunca Çalıyurt

Abstract The issues of ethics in accounting are not considered enough by the practitioners and academicians. However, accounting fraud continues to increase day by day. When we look at the accounting literature, we see that the researches about ethics increase the popularity. In this study, ethical codes were introduced in accounting and then current articles were examined.

Keywords Accounting · Literature · IFAC · Ethics code

The topic of ethics in accounting has always been a popular subject. In 1999, 39 articles in AAA magazines were written on ethics. In 2017, the number rose to 139. The subject of ethics in accounting shows how important it is to study the meaning of all theories and practices related to "ethics" after the 2000 accounting and audit scandals. The social dimension of accounting and finance, the two most technical areas in business science, have never been more important after Enron. We can also examine the importance of ethics in accounting in the USA among the accounting academicians that the article titled "*A Fresh Look at Accounting Ethics*," by L. Murphy Smith, is the second most downloaded article in the American Accounting Association (AAA) journals in 2017 (AAA 2017). In this article, we can also read America's accounting history. This magnificent article shows us a fast movie of accounting in changing America.

"*In the history of the world, there has never been a country like the United States of America. Compared to other nations, America has more freedom, more wealth (more evenly distributed), and more opportunity. The accounting profession has played its part in the America's success story. The profession has a long history of contributions to the efficient functioning of business operations, the capital market system, and the economy in general. In the wake of corporate scandals and a shaky stock market, Congress passed Legislation that established a new board to oversee auditors of publicly traded companies and increased prison sentences for fraud. However, new laws such as the Sarbanes Oxley Act, while helpful, will not restore confidence in*

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the stock market. Confidence will be restored only by ethical leadership from the accounting profession, the business community, and government." Moreover, article finalizes with advice on ethical.

"*Leaders in the accounting profession and academe should focus on calling individuals to excellence. By presenting the importance of high ethical standards, by teaching the importance of personal integrity, we summon current and future accountants to his or her nobility. In doing so, we ensure the future of the accounting profession, which will continue its historic role of fostering the success of the economy and the nation.*"

The accounting profession is, therefore, profoundly concerned with reputation and trust in the profession. Çelikdemir and Karabay (2018) mentioned that in order to execute this profession as much as reputable, mostly, the ethical standards of the profession must entirely be compiled (Sanlı 2012). The effect of any practice unethical in accounting profession brings out the effect of spread to the whole society. For example, such unethical behaviors like showing off unreliable data from the financial statements and tax evasion will spread to the whole community (Kutlu 2008).

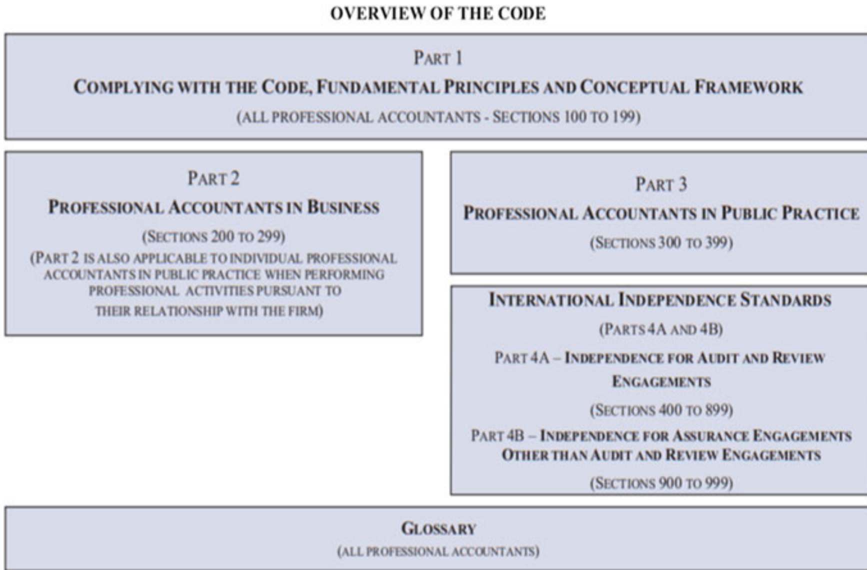
Accounting is also a meaningful way to be good citizenship. Abreu and David (2014) stated that this new era obliges to change the governance of companies and to stimulate the perception of the accounting for citizenship (Farh et al. 1990). Therefore, the authors will answer the research question: What did accounting have to do with citizenship? The answer to this question appears to have a particular sense on the change of behavior of the company that introduces the corporate governance to diminish malpractice, corruption, and fraud. At the same time, it seeks to align citizens and management interests. From the literature, several researchers are increasingly concerned with the citizenship power (Maignan and Ferrell 2001).

Being an international recognized citizen in business, companies should follow regulations promulgated by international organizations. Because of the importance of the ethical concept in accounting and audit, various studies have been performed both in the national and in the international levels. In the international area, International Organization of Supreme Audit Institutions (INTOSAI), International Federation of Accountants (IFAC), International Internal Auditors Institute (IIA), and American Institute of Certified Public Accountants (AICPA) have performed studies. (Pamukcu and Eroglu 2018).

1.1 Codes on Ethics in Accounting Profession

A distinguishing mark of the accountancy profession is its acceptance of the responsibility to act in the public interest. A professional accountant's responsibility is not exclusively to satisfy the needs of an individual client or employing organization. On July 2018, revised international code of ethics by the International Federation of Accountants (IFAC) has been announced on the website. IFAC has divided accountants into two parts as accountants in business and accountants in public service.

CPA's members in IFAC countries should apply these regulations in daily business and public service. All professional accountants should apply codes 100–199 (IESBA 2018).



1.1.1 Codes for Accountants in Business

200 Applying the Conceptual Framework—Professional Accountants in Business
210 Conflicts of Interest
220 Preparation and Presentation of Information
230 Acting with Sufficient Expertise
240 Financial Interests, Compensation, and Incentives Linked to Financial Reporting and Decision Making
250 Inducements, Including Gifts and Hospitality
260 Responding to Non-compliance with Laws and Regulations
270 Pressure to Breach the Fundamental Principles

1.1.2 Codes for Accountants in Public Service

300 Applying the Conceptual Framework—Professional Accountants in Public Practice

310 Conflicts of Interest
320 Professional Appointments
321 Second Opinions
330 Fees and Other Types of Remuneration
340 Inducements, Including Gifts and Hospitality
350 Custody of Client Assets
360 Responding to Non-compliance with Laws and Regulations
During daily business, if the accountant does not want to be blamed for unethical behavior, should follow codes about;
400 Applying the Conceptual Framework to Independence for Audit and Review Engagements
410 Fees
411 Compensation and Evaluation Policies
420 Gifts and Hospitality
430 Actual or Threatened Litigation
510 Financial Interests
511 Loans and Guarantees
520 Business Relationships
521 Family and Personal Relationships
522 Recent Service with an Audit Client
523 Serving as a Director or Officer of an Audit Client
524 Employment With an Audit Client
525 Temporary Personnel Assignments
540 Long Association of Personnel (Including Partner Rotation) with an Audit Client

1.2 Recent Literature on Accounting Ethics

When we search ethical issue in accounting science, we see that many types of research have started to write different sides of accounting like accounting information system, behavioral accounting, and fraud.

- Although many think of AIS primarily as automated, whenever people interact with a system, from development through use, wrong decisions and behavior are risks. There are several links between AIS and unethical behavior. First, accountants may use systems to engage in (i.e., commit, convert, and conceal) occupational fraud.[1] Second, accountants may use systems to violate individuals' privacy by collecting, storing, selling, and using these data for unauthorized, self-serving, or unethical purposes. Third, technology-based systems may enable individuals to engage in unethical practices over others, such as unauthorized monitoring. Last,

[1] According to the Association of Certified Fraud Examiners (ACFE), occupational fraud includes asset misappropriation (e.g., fraudulent billing, payroll fraud, and expense reimbursement fraud), corruption, and fraudulent financial reporting (i.e., intentional manipulation of reported information, either its content, or its form, or both).

systems themselves, even the mere existence of a system (Hannan et al. 2006), can lead to deskilling or may bias an accountant's moral judgment, by either clouding their awareness of wrongdoing or altering their evaluation of what is right or wrong. More recently, individuals acting for themselves and individuals acting as organizational agents have used AIS to violate individual privacy, misappropriate business assets, and falsify accounting data to meet organizational goals and market expectations.

- Long et al. (2013) discussed on valuing ethics at the expense of inventory on a detailed case.
- Long et al. (2018) stated that companies around the world commonly engage in earnings management. Some earnings management techniques comply with US GAAP and do not violate financial reporting standards (e.g., real earnings management techniques such as postponing research and development expenditures), other techniques clearly cross the line (e.g., misclassifying repair and maintenance expenses as capital expenditures), and some fall into a gray area (e.g., adjusting the allowance for bad debt). The case in the article exposes students to an ethical dilemma that involves earnings management: toward the end of its fiscal year, the executive management team at Toomer's Energy Drinks' European division realize that they will fall just short of a short-term financial performance target, and consider ways in which they can manage earnings to generate sufficient performance to meet the target. The case exposes students to ways in which companies manage earnings, and encourages students to think critically about the extent to which these techniques are ethical by requiring them to apply the IMA's Statement of Ethical Professional Practice and the AICPA's Code of Professional Conduct to a realistic scenario.
- Mintz et al. (2013) examined relationships between accounting academics and external sponsors that challenge academic independence because of conflicts of interest when donors seek to impose conditions on financial support. We solicit the opinions of academic accountants about how likely they are to go along with the conditions. We link these activities to the following ethical issues: fair-mindedness, objectivity, and integrity. We conclude that the more experienced accounting academics (i.e., full professors, current chairs, holders of endowed chairs, and designated faculty fellows) are less likely to engage in ethically questionable relationships with external sponsors than academics who are less experienced. The results are driven primarily by two cases: allowing a Big 4 CPA firm to interview students before other firms as a condition of continued recruiting, and allowing a firm to decide on the recipient of a named faculty fellowship.
- Liu et al. (2012) studied on offering accounting educators additional perspectives for ethics education by considering teaching approaches from medicine and law. It takes the form of literature review and argument. The paper finds that ethics education in accounting shows deficiencies regarding code-bound content, less systematic formal training, less informal hands-on training, and less usage of partnering in comparison to ethics education in medicine and law, thereby producing students with higher good cognitive capabilities.

- Bailey (2015) mentioned in his research that there is no reason to expect that accounting research would be tainted more by fraud than other disciplines but to claim that accounting researchers are exempt would be foolish. The existence of some fraud is all but inevitable.
- Bailey et al. (2001) using a randomized-response survey of highly published researchers reported self-confessed fraud affecting about 4% of respondents' work.
- Bailey (2015) effects of psychopathy in a professional population have not been statistically studied, and this was the first empirical evidence of a connection between psychoticism and fraud or professional misconduct. Based on a sample of 546 faculty members who have published in the "top 11" accounting journals, they found that primary psychopathy acts through its effect on unethical attitudes to increase an individual's publication count. This finding implies that some individuals use unethical or fraudulent means to generate publications and that the attitudes that allow accounting researcher to rationalize such conduct are driven partially by psychopathy.
- Fraudulent behavior among AIS users is a perpetual accounting and auditing concern. Financial fraud is an activity that can affect more than one person or company, and it may have indirect effects on external entities. Employees that are authorized users of an AIS may have the opportunity to misappropriate AIS data and information. When authorized users are members of the organization's accounting department, the misappropriation of AIS data and information may be a form of occupational fraud, the illegal action of converting or concealing information for personal gain. The Association of Certified Fraud Examiners defines occupational fraud as the misappropriation of assets (Goldstein). For example, an accounting employee with authorized access to the AIS database may be able to alter payroll, billing, or reimbursement data for personal gain. Fraudulent behavior by accounting employees can also involve the intentional manipulation of the content or the structure of financial reports (Bressler 2011).

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Part II
Social Responsibility and Sustainability in Accounting

Chapter 2
Enhancing Governance Through Accounting Reform: A Local Council Evidence

Abang Iskandar Bolhassan Abg Mohamad Ariff and Corina Joseph

Abstract This paper examines organizational change in a Malaysian local council using Council A as the case study. Correctly, this paper identifies factors influencing accounting reforms in a public sector organization. This paper employs semi-structured interview with ten staff of Council A. The content analysis involves observation on the council's financial statement for the period of ten years starting from 2005 to 2014. Drawing from the institutional theory comprising of coercive, mimetic, and normative isomorphism, this paper found that accounting reformation in Council A is identified during the financial and management audit, that is, Accountability Index. Since its establishment in 2005 to 2014, Council A has implemented accrual accounting. This paper found that the factors influencing the accounting reforms in Council A consist of factors including budget allocation, auditor's opinion, staff knowledge and capabilities, and the management decision. The findings in this paper would potentially benefit other local authorities particularly in Sarawak in becoming more effective in their service delivery and in facilitating the Financial Management Transformation. The paper adds to the limited literature on public sector reform in developing countries using the institutional theory.

Keywords Public sector reform · Accrual accounting · Institutional theory

2.1 Introduction

Many government entities in various countries have successfully transformed cash accounting to accrual accounting such as Australia, New Zealand, Canada, and UK.

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The application of accrual accounting is part of the public sector reform initiative in Malaysia (Isa et al. 2014) and providing an accurate and fair view of the financial position and results of operations, by the relevant financial reporting framework (FEE 2008).

The recent developments in the Malaysian governmental accounting in improving the governmental budgeting and financial management indicate government's efforts in embracing the features of a new public financial management (Fatimah et al. 2012). For example, the development of Government Financial and Management Accounting System (GFMAS) is used to assist accrual accounting in capturing accounting transactions and financial preparation. This system is expected to be flexible and comply with the accounting standards based on either cash accounting or accrual accounting, or a hybrid of both. The accrual accounting system has become part of the support system for GFMAS. This initiative is an essential stepping-stone for migrating from cash accounting to accrual accounting.

This paper is an extension from a previous study conducted by Joseph and Janggu (2007) on the reforms in Sarawak[1] City Councils concerning the accounting and IT implementation. Joseph and Janggu (2007) have examined the implication of IT implementation on the financial performance particularly on revenue, expenditure, management of account receivable, and preparation of financial statement in two councils. They analyzed the accounting computer system of the councils over a 6-year period from 1998 to 2003 and identified improvements in the financial performance of the councils upon IT adoption. They found that Council A (a case in this paper) implemented accrual accounting since inception.

Following Joseph and Janggu's (2007) study, this paper examines the accounting reforms and factors influencing such reformation over a 10-year period from 2005 to 2014 in a local council, Council A. As a fully supported IT council, the preparation of accounts in Council A is still seen to be unsatisfactory (Joseph and Janggu, 2007) due to problems such as system failure in generating listing for audit purpose. Ernst and Young (2009) reported that the accounting and reporting systems for the local authorities in Sarawak are mainly used for financial reporting. Their systems also cannot provide a more accurate revenue and expenditure reporting for effective financial management. Therefore, it has been highly suggested that the application of accrual accounting in the delivery of public services by local authorities is necessary to ensure the accurate recognition of all costs and revenues (Ernst and Young 2009).

Solomons (2012), however, has argued that a significant obstacle faced by the emerging economies, such as Malaysia in moving toward accrual accounting the availability of technology infrastructure in an organization. Technology infrastructure presents challenges in implementing the accrual accounting system via its specific characteristics (Seguin 2008). Khan and Mayes (2007) cited the importance of integrating the computerized information system into the comprehensive financial management system due to lack of expertise in the accrual accounting implementation (Ouda 2003).

[1] Sarawak is one of the states in Malaysia and located at Borneo Island.

Of late, the local authorities in Malaysia have been facing a lot of criticisms from the public regarding their financial performance. Financial reports aspects such as superiority and trustworthiness are among the aspects that have been given attention by the stakeholders. These stakeholders have demanded more magnificent sound and practical financial information (Mohamed et al. 2010). Arguably, the development of an accounting system is required to have an excellent form of reporting. Of consequence, IT needs to be reformed.

In Council A, the financial statements are prepared based on accrual accounting following the Malaysian Private Entities Reporting Standard (MPERS) and the mandatory requirements of the Local Authorities Financial Regulations 1997 (LAFR). Joseph and Janggu (2007) have found that reformation has been conducted to the system in Council A over a 6-year period from 1998 to 2003. Such system was adopted to ensure that the council could provide an accurate and fair view of the financial position by the relevant financial reporting framework. However, Joseph and Janggu (2007) did not use any theory to explain the reformation process in Council A. Therefore, this paper extends the work of Joseph and Janggu (2007) on accounting reforms that have been taken by the council over a 10-year period from 2005 to 2014 using an institutional theory to explain factors influencing the accounting reform process of Council A. The following research questions were developed in this paper:

1. How is the process of accounting reforms in Council A?
2. What are the factors influencing the accounting reforms in Council A?

The findings in this paper are hoped to benefit the accounting regulators in analyzing the accounting practices among the local authorities. The findings in this paper could also shed some lights on the challenges faced by the local authorities in transforming their accounting system from cash accounting to accrual accounting. The findings may also be beneficial for government agencies to become more effective in their service delivery and facilitate the Financial Management Transformation agenda.

It is also hoped that the local authorities would implement accrual accounting and have a good management reporting system in place and, subsequently, assist them in better communicating with their stakeholders on the utilization of the ratepayers' money, trust fund, and a government grant. Of consequence, this would enhance the transparency and accountability of which is very much needed by stakeholders. Finally, this paper contributes to the public sector accounting literature mainly studies focusing on local authorities since research on accounting practices among local authorities in a developing country using the institutional theory framework is mostly unexplored.

2.2 Literature Review

The second half of last century has seen radical changes in management tools, information technology, ways of decision-making, performance measurements, account-

ing procedures, accounting systems among others (Ouda 2003). In this regard, accounting is an information system that plays a significant role in the reform process undertaken by any government entities in the world.

The remodeling of public sector entities by emulating the private sector entities is usually associated with the introduction of new financial management systems. Such remodeling exercise as mentioned by Cohen et al. (2007) in their case study of accounting reforms in Greek Municipalities among others was linked to the concept of accrual accounting. In their paper, they identified and analyzed the underlying factors that contributed to an IT failure in the public sector in Greece. They found the software solutions that were developed proved to be inappropriate and inadequate to support accounting reforms. They described the characteristics of the assessment model based on systems theory principles that were developed to assess the Integrated Management Information System (IMIS) solutions and address the deficiencies created by the software in their operational environment. The results of such application indicate that such model is suitable for assessing software applications that correspond to procedure execution and follow-up systems, which are mainly present in public sector organizations.

In Malaysia, public sector reform refers to when the government tries to change the way it operates in areas such as systems, welfare, health care, and government administration. There are few reasons on how public sector reform can be launched such as budgetary reasons, political and ideological reasons. Thus, reform may cover whole or part of the government.

As one of the developing countries, Malaysia to a certain extent suffers weak financial management and control systems at all levels of the government tiers, be its federal government, state government, statutory bodies, local authorities, and the state religious councils (SRC). A study conducted by Md. Zain (2005, 2008) as quoted in Abu Bakar and Ismail (2011) found that a high percentage of SRCs did not comply with the respective rules and standards about the preparation and submission of financial statements. Also, it was noted there was a considerable delay in submitting accounts among statutory bodies.

The Malaysian government has also issued a circular Standard Accounting System for Government Agencies, No. 1/2011, to ensure that the government accounting system is following the requirements of GAAP (Wan Selamah 2011). Besides, the Accountant General Department through the Malaysian Public Sector Accounting Standard (MPSAS) has unveiled Exposure Draft 1/2012—Presentation of Financial Statements. This standard sets out overall considerations for the presentation of financial statements, guidance for their structure, and minimum requirements for the content of financial statements prepared under the accrual basis of accounting (MPSAS 2013). With effect from January 1, 2018, the public sector has adopted accrual accounting and relied on bases and policies which are consistent in all material aspects of accrual-based IPSAS. The adoption of accrual accounting sets the platform for implementation of Activity-Based Costing (ABC) toward efficient and effective fiscal management (Wan Selamah 2011).

In the context of Malaysian public sector, the Malaysian Accountant General Department (JAN) plays a vital role in the evolution from currently using modified

cash accounting to modified accrual accounting in 2014 and full implementation of accrual accounting in 2015. Azleen et al. (2012) have examined the perception of accrual accounting adoption among 102 employees of JAN. It was revealed that more than 50% of the respondents preferred accrual accounting as their future accounting basis for financial reporting. In their study, they also showed that most respondents agreed with the accounting and financial reporting policy in the adoption of accrual accounting for double-entry bookkeeping system that was used to indicate accounting recognition and measurement. Thus, their intention to adopt accrual accounting was to reduce the unevenness of information as compared when adopting cash accounting. Of consequence, such adoption had improved the quality of information for better financial reporting and decision-making (Azleen et al. 2012).

As the world changes with the fast pace of IT and k-economy era together with the scarcity of resources, the government and public sector managers are more conscious of the different ways in delivering services to achieve government's policies and desired outcomes. These forces have set a precondition for governments to adopt financial reform (IFAC 1996). The financial reform has led to the controversies on the adoption of either cash accounting or accrual accounting as a possible base for a high-performance management system (Deaconu et al. 2011).

Contrary to cash accounting, several researchers have argued that financial report produced under accrual accounting has its advantages and has brought enormous significance to the government. There are several reasons as to why the move to accrual accounting is inevitable. The information relating to full operational costs and resources allocation for public service delivery are provided apart from giving an opportunity to the government to minimize their costs through cost identification (Hoque and Moll 2001). The full costs of government services can be critical when considering alternative service delivery options including outsourcing and cost recovery. Thus, accrual-based data from the central accounting system can be utilized to determine program and product costs (Khan and Mayes 2007).

2.3 Factors Influencing Adoption of Accrual Accounting

Before embarking on an accounting reform process, the factors that may undermine the reform process need to be managed wisely. Based on previous studies, a person's positive or negative feeling on performing behavior would be the key to his or her attitude. These studies argued that attitude of a person could affect the intention to early adoption to accrual accounting as attitude affects behavioral intention (Arsen et al. 2012). This behavioral intention can be associated with four elements, namely behavior, behavior direction toward the target object, situation, and the time that behavior is performed. However, individuals tend to perform an activity despite their behavioral intention.

Cameron (2011) has revealed that there are several conditions to be considered before adopting accrual accounting. These conditions include the need to build capacity, adopt a leadership role, an additional audit in the first year of adoption, problem

resolution service, and additional assurance to Parliament. It is important to note that one of the notable issues associated with the transition from cash accounting to accrual accounting is human resource availability. This issue is considered one of the critical factors influencing the extent to which institutional capacity of an organization can successfully implement a new accounting system (Bogt and Van Helden 2000, quoted in Harun and Kamase, 2012, p. 42).

The process of migrating to an accrual accounting system can impose significant additional resource costs not only regarding more administrative and accounting costs (Fatimah et al. 2012) but also regarding demand for specialist IT skills (Cameron 2011). The financial management system requires the extensive use of IT in line with the public sector reform agenda (Ouda 2003).

Hence, it is not recommended for a government to carry out a full accrual accounting system implementation with no full support of a sophisticated government financial management information system (GFMIS) which has been proven functionality in areas such as general ledger, accounts payable, purchases, and assets management(Khan and Mayes 2007). Lastly, the success of implementation of accrual accounting relies heavily on the government external auditors' understanding and willingness to support the system. As such, it requires an enhancement to the organization, career structure, and training of auditing staff (Cameron 2011).

2.4 Institutional Theory

Institutional theory has been widely applied in accounting research by several authors in the public sector (e.g., Midin et al. 2017; Joseph and Taplin 2012). Although the institutional theory has drawn some criticisms due to its overemphasizing on the outcome (Dillard et al. 2004), Bogt (2008) argued that this approach could facilitate the process of accounting change in public sector's organizations and environments.

Institutional theorists maintained that organizations could impact and be affected by the society in which they are operating. Organizations reacted to forces from their institutional environment and implemented practices and policies which are conformance to society's expectations and seen as legitimate by other members in the same organizational field (Carpenter and Feroz 2001; DiMaggio and Powell 1983). In this respect, one key point of this theory is legitimacy; it suggests that organizations have legitimacy in its broader population and stakeholders to acquire the resources for survival purposes (DiMaggio and Powell 1983).

DiMaggio and Powell (1983) asserted the homogenization of similar practices as isomorphism, which can be categorized as coercive, mimetic, and normative. Scholars argued that these three isomorphism pressures be challenging to be separable. In essence, "isomorphism can be described as a constraining process that forces a unit in a population to resemble other units that face the same set of environmental conditions."

Due to this pressure, organizations are becoming increasingly homogeneous within the given domains and conform to expectations of the broader institutional

environment and thus influence their structure and practices (Carpenter and Feroz 2001). The approach to use isomorphism in explaining organizational conformity has been used in the public sector management accounting research in examining the non-rational and ceremonial use of accounting information (Scapens 2006).

According to DiMaggio and Powell (1983), coercive isomorphism occurs as political and regulatory pressures put forth on organizations by other organizations in which organizations are highly dependent for funding and by fulfilling the society's requirements, in which they are operating. About this paper, examples of coercive pressures include the regulations, policies, and procedures imposed by the federal and state governments, the Local Government Community Department (LGCD) of Sarawak, and by the local authority itself. About the audit institution size and regulations, the concept of coercive isomorphism is relevant in this paper. Lynch (2010) noted that public sector organizations have higher pressure to disclose information compared to the private sector organizations due to their larger and diversity in the stakeholders.

Mimetic isomorphism transpires when organizations intend to copy or imitate the practices of peer organizations which have been perceived to be more legitimate and thriving, in the event of uncertainty or ambiguity (DiMaggio and Powell 1983). This imitation process is mainly triggered when there are uncertainties in the environment, for example, where organizational technologies are poorly understood, and goals are ambiguous. In a study by Collin et al. (2009), in the case of mimetic isomorphism, the organization needs to be identified as a municipal category when determining the appropriate accounting choice. This adoption refers to the technology infrastructure that is the accounting information system used by larger local authorities. Although the adoption of a computerized accounting system with accrual accounting is part of coercive pressure as directed by the state government, the actual implementation of an accrual accounting information system by the Sarawak Local Authority can easily be regarded as socially acceptable behavior. The adoption aims to maintain their legitimacy by not standing out as being different and is in line with the mimetic isomorphism.

The normative isomorphism stems mainly from professionalism, which is driven by formal education and growth, and elaboration of cross-organizational professional associations or networks (DiMaggio and Powell 1983). Another source of normative isomorphism is expertise in which it is claimed to be a valuable resource particularly in the implementation of reform initiatives (Baker and Rennie 2006).

2.5 Research Methodology

This paper employs primary data through semi-structured interviews and content analysis. The content analysis involves observation on the council's financial statement for the period of ten years starting from 2005 to 2014. According to Joseph (2010), two aspects of procedures involved in semi-structured interviews are gaining entry to the research site and ethical considerations (Creswell 1994). An official

Table 2.1 Respondent working profile

No	Working position	Department	Working experience with Council A (years)
1	Head of Finance Division	Finance	23
2	Head of Accounts and Revenue Unit, Finance Division	Finance	15
3	Head of Payroll Unit, Finance Division	Finance	22
4	Head of Budget and Investment Unit, Finance Division	Finance	8
5	Head of Payment Unit, Finance Division	Finance	25
6	Head of Counter Unit, Finance Division	Finance	24
7	Senior Clerk of Accounts and Revenue Unit, Finance Division	Finance	18
8	Senior Clerk of Payroll Unit, Finance Division	Finance	20
9	Senior Clerk of Budget and Investment Unit, Finance Division	Finance	22
10	Senior Clerk of Payment Unit, Finance Division	Finance	23

letter was sent to Council A's Director to request approval to conduct interviews in the organization.

The names of respondents were chosen by Council A's Director and were kept anonymous to protect confidentiality. A total of ten officers from the Finance Division directly related to the accounting system in Council A were identified. Table 2.1 provides the information on working profile of the respondents.

The interview guide was developed to facilitate the semi-structured interview. The interview guide was prepared in English and consisted of questions designed to meet the objectives of this paper. The respondents were given the Participant Information Statement (before the interview). The interviews were mainly in English but in some cases, where appropriate, a mixture of both English and Malay was used. The interviews were conducted in April 2015 within sixty minutes duration and, therefore, allowed time for discussion and probing into further issues raised by the subjects. During the discussion, respondents were free to provide their opinions and views on many aspects. This is consistent with the suggestion by Bryman and Bell (2007). Supplementary notes were taken, and audio was recorded with permission during each interview for recording purposes and to ensure validity and accuracy.

"Word-for-word" transcriptions of discussions were reworded together with editing grammatical errors. The translation from Malay to English was also done for interviews that were conducted in Malay and checked to ensure accuracy in meaning and context. The transcriptions were stored in both hard and soft copies. To fully understand the complexities of many situations, direct participation and observation of the phenomenon of interest was the best research method.

2.6 Findings and Discussions

Background of Council A

Council A's vision is *"Kuching—a vibrant, livable city of choice,"* and the mission is *"To enhance the quality of life by creating a conducive environment, citizen engagement, and best-in-class service delivery.*" The vision and mission are in line with the aspirations of the former Chief Minister of Sarawak who wanted to make Kuching a modern city that is beautiful, green, healthy, economically and culturally vibrant with the people's participation.

Since its establishment until now, Council A has always tried to reform Kuching North City as a city that is growing, beautiful, peaceful, prosperous, and proud by the citizens of the city. Also, Council A also becomes a pioneer for all local authorities in service quality provided for the public. As a dynamic organization, Council A has always been ready to bring positive changes, not only to the procedures of the existing work but also on the attitude and behavior of its officers. Council A has always been alerting and moving toward improving efforts and quality through innovation and continuous improvement.

2.7 Accrual Accounting Implementation

This section presents the findings of the first part of the interviews that is the accounting aspect. Joseph and Janggu (2007) found that Council A has prepared their accounts based on accrual accounting concept. Therefore, the leading question in this part is to identify the period of accrual accounting implemented in Council A. The affirmative answer from the respondents revealed that Council A had adopted accrual accounting method since its inception. Subsequently, the respondents were asked on what business model or which country does Council A followed in implementing accrual accounting:

> Council A did not follow any country or any business model in the adoption of its Accrual Accounting. It was influenced by the administration and management of the 1st Mayor. His vast experienced has influenced the way he managed (Head of Finance Division)

The evidence from interviews reveals that it was influenced by the way the first mayor of Council A managed the organization and there was some formal or informal communication among the management team. This supports the argument for normative isomorphism, which indicates that implementation of accrual accounting becomes a shared norm of organizational members and gains acceptance within the organization. This is consistent with Mack's (2006, p. 21) "there was a process of osmosis and the willingness of key Triple Bottom Line (TBL) reporting instigators to try something new" when explaining on an innovative technique, i.e., TBL. The findings also suggest that there was no existence of mimetic isomorphism in explaining accrual accounting in Council A.

2.8 Accounting Reform

This section aims to achieve the first objective of this paper. The first objective is to examine the accounting reforms implementation in Council A. The respondents were asked on the type of reforms that have been conducted in Council A. There were various responses from the interviewees, and their responses are summarized in Table 2.2.

During the interview, it has been found that the most cited type of accounting reforms by the respondents was the reform in the accounting system.

> A few reforms have been done in Council A regarding the financial system where we changed to the new accounting system in the year 2000 replacing the previous system, which was the SMART system. (Head of Finance Division)

The comments indicate that reforms in accounting system include improvement in Council A's information systems which have been triggered because of the recommendations and the sharing of ideas by internal and external parties such as the proposal by the supplier of information systems as well as decisions made by the management, users, and information technology (IT). Therefore, these are related to normative isomorphism as the ideas either internal or external are communicated throughout the organization. This is similar with Joseph (2010) who found that formal or informal communication among the key personnel of the sustainable development program (one of the public sector reform initiatives) in Malaysia has supported the argument of normative isomorphism.

It was also noted from the observation that the accounting systems that are still in developing process are the electronic overtime system (EOT) that is based on a suggestion by Council A's staff and the electronic vote system (eVote) used by the federal government. Thus, this explains the mimetic isomorphism factor as Council A refers to other organization, that is, the federal government, on the eVote. According to DiMaggio and Powell (1983), the mimetic isomorphism is often a response to

Table 2.2 Types of accounting reforms

Respondents	Accounting system	Internal policies	Division's management	Financial reporting	Others
R1	✔	✔	✔	✔	
R2	✔	✔	✔	✔	
R3	✔	✔		✔	✔
R4	✔	✔	✔	✔	
R5	✔	✔		✔	✔
R6	✔	✔			✔
R7	✔		✔		
R8	✔				
R9	✔	✔			
R10	✔				

uncertainty, and Scott (1995) explains that in facing uncertainty, organizations tend to model themselves after other organizations, particularly those they deem to be successful. Council A's annual report in 2014 revealed that there were few systems related to accounting in Council A that have been developed and improved since 2005. These systems include Online Receipting System—Integrated Counter Payment System; Accounting system—Integrated Local Authority Information System (ILAIS); Compound Management System (COMPARKS); Asset Management System; Rating and Billing System—State and Federal Government Holdings (FGH); Electronic Procurement System (EPEC), and Electronic Licensing System LA2 (ELA2).

Another reform that has been conducted in Council A is related to its internal policies such as the investment policy, staff's claim policy, and payment policy. These policies have been revised and enhanced according to advice from the auditors during the financial management audit. This supports the argument for coercive isomorphism that occurs due to pressure from the National Audit Department (NAD).

> Some policies have been revised based on comments and advise from the NAD auditors during the audit process. (Head of Accounts and Revenue Unit, Finance Division)

Therefore, such finding is consistent with DiMaggio and Powell (1983) that coercive isomorphism occurs due to regulative influences, which stem from pressures exerted on organizations by other organizations.

> Besides that, there are also changes in the internal policies. For example, the investments policy that has been brought to the Investment Committee for decision. Previously, our investment decision was made internally. (Head of Finance Division)

> We also had revised some internal policies that related to financial matters such as the claims policy and others. (Head of Payroll Unit, Finance Division)

Based on Council A's Finance Division's internal policies' record observation, the policies that have been revised are investment policy, staff claim policy, different billing policy, payment's policy, and the receipt's policy. Those policies, however, would be revised if there is a directive by the management.

According to the respondents, internal finance management was also part of the accounting reforms. The researcher notices from the observations and interviews that the finance division in Council A has implemented some reforms such as job rotations within every five years, a weekly report from each unit, monthly division meetings, daily bank reconciliation, and monthly financial closing.

Therefore, it can be concluded that the internal management forms part of the internal control in Council A as a process to ensure the achievement of an organization's objectives. Also, having a proper internal control would allow the operation of the organization to become more effective and efficient, thus producing a more reliable financial report that is in compliance with the rules, regulations, and policies.

Finally, the respondents indicated that one of the accounting reforms in Council A is regarding financial reporting. Consistent with the internal policy, the financial reporting has also been revised according to advice from the external auditors during financial year audit. Another reason for reforms in financial reporting was due to the compliance with the new regulations such as the new accounting standards and

procedures as well as requirements from the management. Therefore, this finding supports the argument for coercive isomorphism that occurs due to pressure from NAD and pressure from management to comply with *The Local Authorities Financial Regulations* (LAFR) 1997 and to achieve the Key Performance Indicator (KPI).

2.9 Factors Influencing Accounting Reforms Implementation

This section aims to achieve the second objective of this paper, which is to determine the factors influencing accounting reforms in Council A. The interviews reveal on few factors influencing the accounting reforms.

> For me, factors that influenced the accounting reform process in Council A are budget and staff capabilities. Besides that, there were also factors such as auditor's opinion and management decision. (Head of Finance Division)

Therefore, from the interviews, the factors influencing the accounting reforms in Council A can be summarized as follows:

- Budget allocation,
- Auditors,
- Staff knowledge and capabilities,
- Management decision.

2.10 Budget Allocation for IT Implementation

Results from the interviews indicate that Council A has no financial problems regarding IT implementation consistent with Joseph and Janggu (2007). Budget allocation for IT implementation was one of the factors influencing accounting reforms in Council A. Further result indicates that the budget was from Council A's internal fund which is only allocated for system maintenance and not for development. The respondents stated that the state government did not allocate grant for IT development project. By using the internal fund, Council A must reduce other maintenance and administrative expenditure to cover the cost.

> Council A did not receive any grant for IT development from the state government. We are using our internally generated fund for that purpose. Therefore, it reduces other expenditure. (Head of Finance Division)

Based on observation and interviews, it is found that the accounting system has been fully equipped with the accounting modules such as accounts payable and receivable, fixed deposits, fixed assets, and bank reconciliations. This shows that there was no further development of the accounting system except for improvement

and enhancement. An example is the implementation of Government Service Tax (GST) required by the government that needs enhancement of the existing system and thus explained the existence of coercive isomorphism mechanism.

2.11 Auditor's Opinion

This section explains the second factor identified by the respondents as a factor that influencing accounting reform that is the auditor's opinion. As mentioned in the previous section, Council A practices accrual accounting and the presentation of the annual financial statement was based on the Malaysian Private Entities Reporting Standard (MPERS) and mandatory requirements of the Local Authorities Financial Regulations 1997 (LAFR). Table 2.3 shows the results of audit report starting from 2005.

Table 2.3 shows Council A's financial statement received an unqualified opinion by the National Audit Department for nine consecutive years starting from 2005 to 2013. Results from the interviews indicate that Council A was able to get the clean report because of a few reforms that have been conducted in accounting aspects. However, there were also some opinions by auditors during auditing process that has been taken as an avenue for improvement.

The respondents were asked in the example of opinions by the auditors and the replies are

> Auditors usually need justification on the fixed assets and liabilities. Sometimes, our listing is not tally with the general ledger balances. Therefore, they need clarification on the differences thus giving their opinions on how the matters should be prepared. (Head of Finance Division)

> There are opinions on how we should carry out the adjustment for some minor errors and how the accounts transaction should be done. (Head of Accounts and Revenue Unit, Finance Division)

Table 2.3 Types of audit reports achieved by Council A

Financial year	Types of audit reports
31.12.2005	Clean with unqualified opinion
31.12.2006	Clean with unqualified opinion
31.12.2007	Clean with unqualified opinion
31.12.2008	Clean with unqualified opinion
31.12.2009	Clean with unqualified opinion
31.12.2010	Clean with unqualified opinion
31.12.2011	Clean with unqualified opinion
31.12.2012	Clean with unqualified opinion
31.12.2013	Clean with unqualified opinion

There is also financial management audit that is known as Accountability Index (AI), an audit conducted by the National Audit Department starting in the year 2007. The organization was rated as four stars indicating the level of organization's excellence. This audit is evidence of coercive isomorphism as the organization must comply with the rules and regulations. According to Dimaggio and Powel (1983), the coercive isomorphism is the pressure exerted on an organization by another organization upon which the affected organization is dependent, and the direct coercive influence of a government on organizations exercised through legislation and regulations.

As for Council A, they were audited three times in 2009, 2011, and 2013 for AI audit. Council A has been certified as a four-star organization for all the three years. Based on the interviews, it is understood that there were some opinions and suggestion by the auditors during the audit to improve quality regarding financial management.

> During AI audit, few findings need to be improved regarding our financial management in terms of how we need to manage the fixed assets, the receivables accounts and others. (Head of Finance Division)

> Auditors for AI give a good opinion that can be used for our daily operation. It is not difficult for Council A to change as we accept the opinions and suggestion accordingly. (Head of Accounts and Revenue Unit, Finance Division)

Therefore, the result indicates that opinion from auditors is one of the factors that influence the reform process as it can improve some routine process of accounting.

2.12 Conclusion

This paper managed to achieve its general objective of analyzing the accounting reforms implementation and the factors influencing the reform implementation in Council A by successfully using institutional theory. Also, this paper has successfully explained the objectives of the research by using the institutional theory comprising coercive, mimetic, and normative isomorphisms.

The primary expected outcome from this paper is to understand and to explain the accounting reforms that have been implemented by Council A as one of the leading local authorities in Sarawak. By studying the factors that influenced the reforms process, it can be useful to other local authorities especially in Sarawak to become more effective in its service delivery and to facilitate the Financial Management Transformation.

This paper is not without its limitations. Firstly, the evidence is based on the semi-structured interviews which are only conducted over not more than one hour and, therefore, may not capture much of the views of the respondents which might be obtained from using an alternative research method. Secondly, only ten officers from the Finance Division in Council A took part in the paper. The selection of the respondents was recommended by the management. The researcher was not able to

cover the whole Council A due to unavailability of officers in charge in a technical area such as IT. All these factors might lead to biases in interview responses.

Finally, about one-third of the respondents were those without IT/finance/accounting academic background. Therefore, they might not have the necessary accounting background to understand the technical aspects of accounting practices fully. This may affect the reliability and validity of responses required for this paper, to some extent. Several recommendations could be considered based on this paper such as:

i. Mandating the implementation of accrual accounting for other local authorities in Sarawak if they have not started. This considers the adoption of bases and policies which are consistent with all material aspect of accrual basis IPSAS. The findings in this paper indicate that Council A has achieved four-star rating in AI audit due to the accrual accounting implementation.
ii. Council A should provide easy-to-follow accounting manuals and guidelines to assist those who are not familiar with accrual accounting aspects. This is to assist them to become fully aware and will give them opportunities to contribute an idea for accounting reforms.
iii. More exposures in term of training and attachment with the private sectors and relevant government-linked companies (GLCs) should be given to the essential relevant personnel in Council A. This is to assist them to become more familiar with accrual accounting and the accounting system that is being practiced in the private sectors and the GLCs as well.

This paper contributes to the limited literature on the investigation into the accounting reforms or local authorities in a developing country. For future research, it is suggested that a similar paper should be conducted with other local authorities in other states in Malaysia.

Also, the semi-structured questionnaire can be attached to the interview to get a useful response from the staff on the accounting reforms. A similar paper could be emulated to cover other government organizations such as the ministries and statutory bodies in Sarawak. Therefore, more comprehensive information could be collected to explain the accounting reforms and the factors that influenced the reforms process in local authorities.

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Chapter 3
Accounting Ethics Education in Turkey: An Evaluation Within the Frame of Opportunities and Challenges

Abdulkerim Daştan and Uğur Kaya

Abstract The aim of this study is to investigate the need for the teaching of accounting ethics in Turkey, dealing with the evaluation of teaching ethics in accounting education within the frame of opportunities and challenges. Based on the present literature, the study first dwelled on the existing conditions in ethics education in Turkey and then discussed opportunities and challenges under the light of some feasible and reasonable solution. Some of the opportunities in accounting ethics education in Turkey can be classified as socioeconomic status in Turkey (informality, loss of tax, and tax evasion), development and application of principles of corporate governance, crises and financial scandals, the transition to international accounting standards, and developments in the accounting profession. Challenges probably to be faced in accounting ethics education in Turkey can be classified as who will teach accounting ethics, what methods should be used, and at what level accounting ethics should be taught. The study concluded that the socioeconomic structure of Turkey, lessons gleaned from crises breaking out across the world, and comprehensive adaptation of international accounting standards could be considered the most critical opportunities.

Keywords Ethics · Accounting · Accounting ethics education
Accounting standards · Turkey

3.1 Introduction

Ethics, deriving from the words "ethos" and "ethics" in Greek, is a discipline that deals with what is right and what is wrong and determines the boundaries of moral duties and responsibilities. Within the context of moral duties and responsibilities,

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ethics is of paramount importance for the world of accounting both from conceptual and factual perspectives. This importance is directly related to the role accounting plays at individual, operational, social, and economic levels.

One can emphasize that accounting as a discipline is somewhat technical regarding recording, classifying and reporting financial transactions. However, since financial information produced by the accounting operations pertains to all interest groups both within and outside the enterprise, accounting has a social character and undertakes large and multi-faceted duties and responsibilities. Therefore, apart from basic principles accepted rules and standards in the field of accounting, accountants should pay utmost attention to the ethical features and fundamentals of this profession, for only by this way can social confidence in accounting profession be built and preserved, and its social credibility be increased.

It is of vital importance to include ethics education in the existing curriculum of accounting education in order to equip the members of the profession with ethical values. By saying "To educate a person in mind but not in morals is to educate a menace to society" (Low et al. 2008: 223), Theodore Roosevelt (1901–1909) emphasized short and to the point the role and importance of ethics in education almost more than a century ago. Of course, this is true for accounting education, for an increase in corruption, despite the increase in the number of educated accounting professionals, increase in corruption in scandalous events and practices and other unethical operations in accounting show that some people working in this field lack ethical values and traits.

Debates over the ethics education in accounting started in the 1980s, and keeping a low profile in the 1990s, regained its heated position in the 2000s because of financial scandals like Enron, WorldCom, and Tyco, and the collapse of Arthur Andersen, one of the Big Five Accounting (Auditing) Firm. Therefore, both some institutions like American Accounting Association-1986 and National Commission on Fraudulent Financial Reporting-1987 and academicians like Loeb (1988, 1994), Langenderfer and Rockness (1989), and Armstrong (1993, 2003) conducted a number of studies on how to design ethics education. For example, AAA (American Accounting Association), operating at the institutional basis, highlighted the role of ethics in accounting claiming that teaching only accounting to accounting students would be of no use without teaching them the ethical values of the profession and that ethics education should be an indispensable part of accounting education.

In their studies, academicians dealt with the following questions related to ethics education in accounting:

- Why or why not to teach ethics in accounting education?
- Can ethics be taught in accounting education?
- Who should teach ethics in accounting education?
- What to teach in ethics education? How and where to teach it?
- Are the real subjects taught in ethics education sufficient?

Such issues discussed instead in developed countries have been neglected for a long time in Turkey, or they have received little attention. Neither institutions

nor individual researchers have conducted enough studies on the matter. On the institutional basis, only TESMER (Basic Training and Practical Training Center) has recently included a course designed as "Professional Values and Ethics" in its exam schedule. In academic circles, very few studies have been conducted to reveal opinions from students, teachers, and other parties.

This study deals with the general characteristics of education of accounting ethics and with opportunities and challenges likely to be faced during the process of ethics education coming up with some solution proposals. To do this, based on the present literature, the study first dwelled on the existing conditions in ethics education in Turkey and then discussed opportunities and challenges under the light of some feasible and reasonable solution.

3.2 Accounting Ethics Education in Turkey

In Turkey, accounting education, in terms of both teachers and materials, has taken a long way. In parallel with developing technical, social, and economic conditions, some new subjects have become urgent needs to deal with, and they have been included in curriculums at associate, bachelor, and master levels. Thus, accounting education has undergone some drastic changes and revisions.

Accounting ethics education has recently received enough attention because of worldwide fraudulent acts in accounting, but it has been given a back seat in Turkey. In fact, a close examination on 16-course books written in Turkey on general accounting between 1990 and 2003 showed that none of them had a chapter on ethics in accounting, which is a case in point (Altuk 2006: 47). A similar study conducted on 24 general accounting course books written in various foreign languages outside Turkey revealed that very few pages (0.77–7.11%) were dedicated issues in accounting ethics (Güneş and Otlu 2003: 113). In contrast to the insufficiency of ethical issues in accounting course books, several articles and presentations have discussed ethics and ethics education in terms of its conceptual and practical characteristics. In the following are the summaries of these studies.

A study conducted by Ozbirecikli and Işık (2011) dealing with the general situation of ethics education at Turkish universities revealed that only one-third of 164 universities introduced ethical subjects in accounting in their accounting education curriculum, and only two universities had courses like "Professional Principles of Accounting and Ethics" and "Ethics in Accounting" that directly deals with accounting ethics.

Another study conducted by Bayraktaroğlu et al. (2005) analyzed accounting course contents of the curriculums of 63 Faculties of Economics and Business Administration Sciences, reachable on the net, to see whether the courses covered ethical issues and whether they designed courses directly teaching ethics. The study revealed that, of 63 schools, only 18 had courses that had the word "ethics" in the course name. Eight universities had courses whose names contained the word "ethic" and whose contents dealt with the subject of ethics. Twenty-two universities had courses whose

contents covered ethical issues in accounting. The study also showed that the number of courses that contained the word "ethics" in their names was 19, and the number of those that covered ethical issues was 30. The study concluded that, when compared to other countries, Turkish universities seemed to neglect ethics education in their faculties.

Daştan (2009) updated the findings revealed by Bayraktaroğlu et al. (2005) demonstrating that only three courses had the words "ethics" and "accounting" in their names, though some courses existed with the word "ethics" in their names. These three courses were "Professional Ethics in Accounting," "Ethics Education in Accounting," and "Ethics in Accounting," and they were delivered only in MA classes.

In her study covering Business Administration Departments at Turkish State Universities, Çalıyurt (2007: 77–79) found that more than half of the participant lecturers (55.3%) stated, they taught ethics in their classes while teaching accounting. This contrasted with what other researchers found in their studies corresponding to course programs, course and book contents at Turkish universities. Çalıyurt also asserted that, of the participant academicians, 38.3% used national and international literature in their teaching of ethics, 23% included ethical issues in their accounting course contents, and another 23% believed that ethics and accounting should be taught as separate courses.

Presentations delivered at various conferences handled the issue from different perspectives. For example, Üçoğlu (2009) presented a study that dwelled on the reflections of ethics education on business circles, academicians and students emphasizing that ethics accounting students should be taught to student's ethics stressing the risk that some students and lecturers might be against the inclusion of ethics in accounting course schedules and contents, and some others undervalued the importance of ethics education with reference to Adkins and Ratke (2004).

Kiracı and Elitaş (2009), in an empirical study conducted on 114 academicians to evaluate their points of view of accounting education, dealt with various perspectives of ethics education. The study found that a vast majority of the participant academicians (80%) believed in the exigency of teaching ethics in accounting classes, and 92% believed that ethics education must be a part of the accounting curriculum. As justification, they highlighted the vital role of ethics in the accounting profession to establish social security with reference to accounting scandals across the world. Those who were against the teaching of ethics in accounting classes grounded their ideas on the assertion that several other factors like family, religious beliefs influence ethical characteristics of a person, and thus teaching ethics in accounting classes would be of no use.

3.3 Opportunities in Accounting Ethics Education in Turkey

Though ethics education in accounting is its first stage in Turkey, it can be claimed that there is a myriad of opportunities to make use of in this field. Some of these can be classified as follows.

3.3.1 Socioeconomic Structure of Turkey: Informality, Loss of Tax, and Tax Evasion

The relationship between the amount of informality, loss of tax, and tax evasion and quality of accounting services in a society is disputable (Daştan 2011: 182). Some questions can be worded as follows: If informality, loss of tax and tax evasion are widespread in a society, can we say that accounting services are delivered efficiently? Can accounting services be delivered in compliance with ethical values? Can informality be prevented by the application of ethical rules to accounting professional services? Can the loss of tax and tax evasion be reduced?

It seems somewhat difficult to come up with reasonable and palatable answers to these questions. Without using scientific information, these answers would be nothing more than mere guesses. However, creative and positive thought, loyalty to ethical considerations, can give a scientific nature to the attempts to find answers to these questions in Turkey as a democratic country sensitive to ethical principles and human rights. For example, teaching "professional accounting ethics" and "tax ethics" to accountants, and thus assigning active roles to accountants in taxation may help prevent loss of tax and tax evasion, for all over the world, and in Turkey, taxation is based on statements. For taxpayers' statements to be faithful, not only a robust tax audit but also high-quality accounting services and skilled and honest accountants play an undeniable role. This role makes an accountant a bridge between taxpayers and tax authority. This proves that problems deriving from the present socioeconomic status in Turkey may create some opportunities for ethics education in accounting. To make the situation a little clearer and to stress the urgency of ethics education in accounting, it would be useful to go over the data for loss of tax and tax evasion in Turkey.

Level of development, corruption, weak and inefficient state control, inflationist economic conditions, unjust and heavy tax burden, complicated and ambiguous tax legislation, and inefficient tax control are the probable reasons for economic informality in a country. Besides these, Turkey has its unique reasons for informality (Güngör 2003: 114), some of which are weak sociocultural fundamentals of Turkish entrepreneurs, non-deterrent legal sanctions in tax penalty system, lack of coordination in auditing, and inefficient auditing system, frequent tax amnesties, and accounting services that are not enough instructive and guiding.

By its very nature, it is not possible to estimate or measure the real size of the underground economy. Therefore, all claims and considerations and investigations to define the real nature of the underground economy must defend on mere guesses and subjective opinions. Studies on underground economy often use such methods and approaches as questionnaires, tax audits, labor force attendance, econometric modeling, the volume of currency issued, GNP, MIMIC (multiple causes and multiple indicators) (Savaşan 2004: 55–59). Based on these studies, the ratio of hidden economy to GNP varies from 1.82 to 86.73:55–59 (Erkuş and Karagöz 2009: 133–139).

In terms of loss of tax and tax evasion, Board of Tax Auditors from Turkish Ministry of Finance, upon an investigation conducted on tax types in Turkey in 2010, concluded that 82.5% of the income from taxpayers was not reported and that the ration of reported income to total income was 17.5% (Gazetesi 2011) data show that underground economy, loss of tax, and tax evasion pose a big problem in Turkey. It is possible to say that much of this problem, apart from its economic features, is ethical, for citizens do not report almost 30% their income and not fiscal much of their commercial transactions and profits. To solve this ethical and economic problem, much of the responsibility lies on the shoulders of accountants. They can help decrease the amount of informality by efficient consultancy services and can create tax awareness in citizens. To achieve this, it is firmly believed that high-quality education will ensure the existence of high quality, well-informed, responsible accountants. The presence of some annoying problems in Turkey's socioeconomic structure presents another opportunity for ethics education in the accounting profession.

3.3.2 Development and Application of Corporate Governance Principles

Can principles of corporate governance for ethics education in accounting create an opportunity? The answer to this question requires much knowledge and information on corporate governance and its principles. Corporate governance is a processor body that determines the rights and responsibilities of all parties concerned from the top to the bottom, that makes decisions and put them into practice holding on to social and ethical values, and that reports the results to all parties in time, transparently and correctly, liable to responsibility and accountability (Daştan 2010: 5).

The need and new understanding of corporate governance stood out with accounting scandals and fraudulent acts in Xerox (2000), Enron (2001), Adelphia (2002), Lucent Technologies (2002), Qwest Communications (2002), Tyco International (2002), World Com (2002), Parmalat (2003), and with globalization, increasing international capital mobility and economic crises all over the world. Like many countries, Turkey had to make a number of arrangements to better put the principles of corporate governance into practice. Some of these arrangements are as follows:

- Securities Exchange Act and Turkish Commercial Code that assigns new responsibilities to enterprises

- Corporate Governance Code of Best Practice: Structure and Functions of Board of Directors
- Basic Principles of Capital Markets Board (CMB) for Corporate Governance
- CMB's Rating of Capital Markets and its Report on Principles for Rating Organizations
- ISE's Activities for Rating of Corporate Governance (2003)
- Corporate Governance Index.

OECD's principles of corporate governance can be defined as follows: (OECD 2004)

- Ensuring the Basis for an Effective Corporate Governance Framework
- The Rights of Shareholders and Key Ownership Functions
- The Equitable Treatment of Shareholders
- The Role of Stakeholders
- Disclosure and Transparency
- The Responsibilities of the Board.

In parallel with the current practices worldwide, the CMB has established the corporate governance Principles (the Principles). Distinguished experts and representatives from the CMB, the Istanbul Securities Exchange, and the Turkish Corporate Governance Forum have participated in the committee that was established by the CMB for this purpose. Regulations of many countries have been examined and generally accepted and recommended Principles; primarily, the "OECD Corporate Governance Principles" of 1999 together with the conditions of our country have been taken into consideration during the preparation of these Principles. The Principles consist of four main sections, namely shareholders, disclosure and transparency, stakeholders, and board of directors (SPK 2003).

Based on the principles of OECD and CMB, it is possible to redefine principles of corporate governance as follows (Daştan 2010: 9):

- Responsibility
- Public disclosure and transparency
- Accountability
- Justice and equality.

In terms of principles of corporate governance, CMB' approach to public companies is "put into force of disclose." Therefore, companies build corporate governance bodies and disclose the required information to the public.

For the principles of corporate governance to work better and efficiently, enterprises need well trained and talented staff. Only the field of accounting can furnish such staff with the required knowledge and skills both by pre- and in-service training and through its information system, well-established standards, field practice, and basic concepts designed for better accounting applications. Principles of corporate governance and basic concepts and ethical principles of accounting can be said to be closely associated with and complementary to one another.

Reliable, complete, updated, clear comprehensible, correct, unbiased, and applicable information produced by the accounting information system is of vital importance for enterprises in terms of corporate governance and professional operations. To build up an information system to produce information of such qualities, it is necessary to equip accounting education with an understanding and culture of ethics, and corporate governance. The interaction between accounting and corporate governance should give the accounting profession corporate characteristics and identity. Thus, the development of principles of corporate governance, which are of paramount importance for enterprises and financial system, can create an opportunity to call attention to ethical issues in accounting education, which may lead to the design of separate or combined courses teaching ethics in accounting classes.

3.3.3 Crises and Financial Scandals

Financial crises and scandals countries and enterprises suffer from can create worldwide negative consequences in the short and long run. Behind every scandal and crisis lie its own unique causes. Besides every crisis and scandal affect individuals, societies, countries, and the world in different ways and levels. Here, a question occurs to minds: Can a relationship be established between financial crises and scandals and accounting, accounting education and inclusion of ethics in accounting education? Can these scandals and crises have turned into an opportunity for ethics education in accounting? After crises in global scale in 2007–2008 and nation-wide between October 2000 and February 2001, is there an increased need for ethics education in accounting? To discuss the relationship between financial scandals/crises and ethics in accounting would be very useful to seek solutions.

Starting first in the USA in 2007, the 2007–2008 global financial crisis took root from problems in mortgage markets and pounded financial markets all over the world. “Bad decisions and audit faults triggered the problems,” said Joseph Stiglitz, 2001 Nobel Prize winner (2008: 9), and criticized the broken promotion system for companies’ executives harshly, and nontransparent share options are bumping up earnings reported by defective and corrupted accounting system. In a report designed to evaluate the causes and the results of the 2007–2008 global economic crisis, TEPAV (Economic Policy Research Foundation of Turkey) put some of the responsibility on the greediness of financial markets, but it claimed that much of the problem derived from faults in the arrangement of corporate governance principles (TEPAV 2009: 1) This means that “defective corporate profile,” “ineffective auditing system,” “poor-quality accounting system,” and “reports based on faulty and insufficient information” are the leading causes of this crisis. Problems with a corporate profile can be solved by corporate arrangements in corporate identity and by applying principles of corporate governance. Ethics education in accounting classes will solve other problems deriving from the accounting system.

A similar approach can be applied to the practices in the accounting and auditing professions in Turkey. Accounting and auditing professions are closely related to

Turkey. For example, audits performed by Sworn in Certified Public Accountant are audits made in the name of the public. Thus, a problem in transactions performed by one of these parties will influence the other profoundly.

Among fraudulent transactions in the accounting system that cause financial crises and scandals are financial information manipulation, income smoothing, earnings management, false financial reporting and disclosure, aggressive accounting, creative accounting, and significant bath accounting (Yayla 2006: 175). Financial crises and scandals caused by false financial information resulted from financial information manipulation, faulty accounting applications not assessing the real values of entities, and inefficient and defective audits result in irreparable injuries and disasters at the individual, corporate, and social levels. These activities conflict with ethical values. Moreover, this creates another opportunity to emphasize the role of ethics education to solve the problem of financial information disclosure.

Countries all over the world had to pay big prices in the 2007–2008 global financial crisis. Deep in the root of the crisis was an excessive appreciation of financial assets. This means that all this process was far away from ethical values in the application of financial principles. With increased unemployment and closed-down factories and other enterprises, and with negative development and social unrest deriving from these problems, Turkey was also among the countries which were poorly influenced by this global crisis. This was not new to Turkey as it was shaken down by a worse crisis in 2000–2001.

One thing is clear that all these scandals and crises were due to unethical practices and conducted in the accounting system. This proves that moral education is an urgent need for accounting. As in all other countries suffering from financial crises due to fraudulent conducts in their accounting systems, so in Turkey this situation may create a golden opportunity for moral education in accounting. Educational institutions and educators and other related bodies should jump up this opportunity and educate the accountants and auditors of the next generation under the light of ethical principles and values. Some European universities included some courses in their curriculums designed for moral education in accounting in the post-crisis era. These courses are shown in Table 3.1.

Tizard et al. noted that this table was designed as an example and that the actual number of classes covering subjects of ethics in accounting was over 200. Similarly, universities in Turkey can and should follow the same path and design courses to teach ethics in accounting education.

3.3.4 Transition to International Accounting Standards

Transition to International Financial Reporting Standards, a way to integrate with the rest of the world in the fields of accounting and reporting, is a long ongoing process in Turkey. Formerly, these standards were partly applied to financial transactions. Fortunately, they will be in full effect as of July 1, 2012, with the enforcement of the new Turkish Commercial Code No: 6102 appearing in the Turkish Official

Table 3.1 Selected courses related to corporate accounting scandals

University	Courses
University of Maryland	Ethics and Professionalism in Accounting
Michigan State University	Accounting for Multiunit Enterprises
	Contemporary Financial Reporting Decisions
	Corporate Governance and Accounting Control
Tulane University (Louisiana)	Ethics in Accounting and Finance
University of Kansas	Fraud Examination and Forensic Accounting
Louisiana State University	Fraud Auditing and Forensic Accounting
Case Western Reserve University (Ohio)	Fraud and Financial Reporting
Florida International University	Fraud Examination
SUNY—Buffalo (New York)	Fraud Examination
Mississippi State University	Fraud Examination
University of Kentucky	Fraud Examination

Source Titard et al. (2004): 62

Journal on February 3, 2011. These codes both design an international language for accountants and revolutionize the accounting practices. For example, the transition from rule-based accounting to principle-based accounting, fair value, net realizable value, and value in use are some of the arrangements and valuation measures to be made and applied in Turkish Accounting System by the new codes.

In contrast to Turkish Uniform Accounting principles which have been in effect since 1994, in principle-based accounting some of the new Turkish Accounting and Financial Reporting Standards (approximately nine) put emphasis on the role of professional judgment in designing and developing accounting policies. The rationale behind the use of professional judgment in developing new accounting policies can be summarized as follows (Tek and Dalkılıç 2008: 16–17). The new standards:

- Refer to such terms as judgment, reasoning, appreciation which are strictly related to the use of professional judgment
- Suggest options for any matter and problem and leave the solution to the professional judgment
- Design and develop some certain practices, but choose one of them to apply for a specific case at hand with the help of professional judgment
- Come up with opinions open to interpretation, referring implicitly to the professional judgment
- Discuss matters which, by their very nature, require the use of professional judgment to handle, especially for cases, practices and calculations without any given method and formulation.

This means that accountants, who do recording and reporting, will also design and form new accounting policies just by using their ability of professional judgment in some specific circumstances. Those who use professional judgment should

obey the principles of neutrality, and honesty of financial reporting standards, and should perform their jobs with great care within the frame set by all other standards (Dalkılıç 2008: 3). This implies that accountants should have not only professional knowledge skill and experience but also such ethical qualities as fairness, honesty, and neutrality. The most impressive way of equipping accountants with such qualities is to teach them accounting ethics during the process of education. This type of teaching will benefit more from the codes of professional ethics issued by accounting professional organizations and institutions. Only together with ethical principles can professional judgment be efficient, otherwise new scandals and financial crises would be unavoidable, for the more professional judgment in the process of accounting, the greyer areas (Verschoor 2010). Therefore, to include ethics education in accounting programs at the very early stages will change the use of professional judgment, see a threat or challenge by many, into an opportunity in Turkey. This means ethics education in accounting will play the very positive role for effective transition to Turkish Accounting and Financial Reporting Standards to be in effect as of January 1, 2013, and for the best management of the transition process.

3.3.5 Developments in the Accounting Profession

Though, as a profession, accounting has almost a century-long history in Turkey, it did not have an official statute and was carried out and administered without principles and codes by ill-qualified and uninformed people. Reorganized by the Law No. 3568, June 13, 1989, the accounting professionals had prestige and such new titles as Independent Accountant, Certified Public Accountant, and Sworn in Certified Public Accountant, which led to the development of the professional discipline, and training of accountants under the light of the new arrangements, laws, and principles. The accounting profession was also affected by economic, social, and technological developments. Apart from recording and preparing financial statements, management of the information gathered in companies and disseminating this information to customers are among the new characteristics of the accounting profession. Financial crises and accounting scandals increased by technological developments have made transparent and fair auditing a rare opportunity and obligation. Other developments that attach new and different functions to the accounting profession are as follows (Arıkan 2007: 20):

- ***Approval of the new Turkish Commercial Code***: The new Turkish Commercial Code ascribes new and vital responsibilities to the accounting profession for the economy to operate based on transparency and confidence. Notably, the new code made it compulsory for accounting-based transactions to obey the Turkish Accounting and Financial Reporting Standards, changing the nature of the accounting profession drastically.
- ***Basel II***: Basically, Basel II standards are concerned with the efficient financial risk management of banks and other financial institutions. To achieve this, finan-

cial statements prepared by companies will play a vital role in the internal rating methods to be used by financial institutions. These financial tables must be compatible with the Turkish Financial Reporting Standards. Furthermore, financial tables of companies borrowing funds will probably be audited by independent auditing institutions (Mısırlıoğlu 2006: 31). Financial markets and credit devices and lines will make their decisions with the help of financial tables reported and audited by the members of the same sector. Informed and experienced accounting staff and their loyalty to ethical issues will contribute to the quality of the information supplied in the tables and that of the service received by interest groups.

A close examination of the developments in the accounting profession shows that members of the accounting profession always assume new responsibilities functions. To better perform these responsibilities, not only information and experience but also honesty, neutrality, and loyalty to ethical principles will play the most critical part. Without ethical principles, accountants will damage their own reputation and that of the profession and colleagues.

Another step would be to include comprehensively ethical issues and subjects in examinations given to accountants for their professional titles. Professional examinations given in Turkey cover ethical issues only in terms of "Professional Law." However, as in other developed countries, ethics should be included in exam programs and subjects as a separate branch of study, which will increase the role of professional ethics in accounting education. For example, the American Accounting Association's Professionalism and Ethics Committee organize seminars and forums to improve the quality of ethics education and knowledge and skills of accountants (Williams and Elson 2010: 110). Turkey can and should follow the same path. To include ethical issues in certificate exam subjects will guarantee the need for ethics education among members of the accounting profession.

3.4 Challenges Probably to Be Faced in Accounting Ethics Education in Turkey

It is noteworthy that problems and challenges faced and anticipated during accounting ethics education are almost the same all over the world. For example, Langenderfer and Rockness (1989), in a study showing the challenges of including ethics in accounting curriculum, underlined the following ones:

- Ethical dilemmas
- The scarcity of subjects to study in ethics classes
- Accounting students' need to study for certificated accountant examination.

Blanthorne et al. (2007) denote that, under the light of the existing opinions, academicians and ethics philosophers can teach ethical subjects and principles in accounting at associate degree, B.A., M.A., and Ph.D. levels in accounting depart-

ments. They also claim that probable challenges in accounting ethics education might derive from the following issues:

- Why and why not to teach ethics in accounting education?
- Can ethics be taught?
- Who should teach ethics?

Although Blanthorne et al. (2007) refer to the literature gathered between 1998 and 2007; recent studies reveal almost the same problems as their study does. Çalıyurt (2007), in her study dealing with ethics education at Turkish state universities, lists the probable challenges in ethics education in accounting as follows:

- Curriculum Standardization Problem
- Time Problem
- Material Problem
- Academic's Background Problem
- Decreased Interest of Accounting Students in Accounting Ethics.

She also claims that these problems have an international nature and characteristics, which means they are also in effect in Turkey. Concerning the above problems, probable problems to be faced in Turkey can be listed as follows:

- Who should teach ethics?
- At what level should ethics be taught? BA level or associate degree level?
- As a separate course or in combination with other accounting courses?
- What teaching methods and techniques should be used?

3.4.1 Who Should Teach Accounting Ethics?

It is widely accepted that accounting ethics educations in Turkey have not reached a satisfactory and desirable level and quality in Turkey. All the same, at universities where accounting ethics is included in their accounting curriculums, accounting ethics is taught by those academics who deliver accounting classes in departments. However, this fact has long been polemical, for dealing with financial transactions in terms of ethics requires distinct skills and information through the subjects of accounting ethics cover these financial transactions. Therefore, a burning question occurs in the minds of those interested in this field of study: Who should teach accounting ethics? This question has long been under discussion in countries where ethics in accounting has a significant place among other scientific matters. While studies in developed countries suggest that accounting ethics predominantly be taught in accounting departments, they initiate heated arguments about whether these departments are proficient and qualified with enough experience and information to teach ethics in accounting (Gunz and McCutcheon 1998; Oddo 1997; Mintz 1990; Armstrong and Mintz 1989; Langenderfer and Rockness 1989). Studies conducted by McNair and Milam (1993) and Cohen and Pant (1989) reveal that

academics in accounting departments find themselves proficient and qualified with the necessary skills and information to teach accounting ethics. However, Langenderfer and Rockness (1989) suggest that ethics philosophers teach ethics in accounting. According to Loeb (1988), an academic team trained for this purpose in faculties and departments should teach ethics.

In Turkey, Mugan (1999: 15) dealt with the question of who should teach ethics theoretically without referring to any empirical practice and concluded that ethics should be taught by accounting or business administration academics with a background of philosophy. To back her opinion, she asserts that academics who have not studied formal ethics will likely be influenced by legal considerations more than decent ones while teaching accounting ethics. Langenderfer and Rockness (1989: 59) referred to the same problem under the title of "a dilemma between law and ethics."

Based on the studies dealing with this subject and on the existing conditions, in Turkey it seems more reasonable to teach ethics with academics with a philosophy background. Nevertheless, accounting departments where accounting academics are taught do not teach their students philosophy at B.A. and M.A. levels, which means accounting academicians lack knowledge of philosophy. Therefore, in Turkey, it is tough for accounting departments to hire accounting academics with a background in philosophy. Thus, accounting departments have to put up with the existing accounting academics to make a start to teach ethics with the help of sample cases and the present literature and conducting M.A. and Ph.D. thesis. If conditions are fulfilled, accounting academics can deliver ethics courses incorporation with the philosophy academics. This will create teamwork, but those who have time problem and thus are unwilling to take ethics classes will have difficulty in coordinating with philosophy departments.

3.4.2 Who Should Take Ethics Classes?

Another problem in teaching accounting ethics is whether accounting ethics classes would be delivered efficiently at B.A. or associate degree levels. Researchers come up with various ideas and suggest not full but partial solution proposals. Referring to the difficulty of including accounting ethics courses in accounting curriculum at B.A. level, Massey and Hise (2009) and Loeb (1994) suggest that accounting ethics be taught more efficiently only at M.A. level. In another study, Loeb (1998: 247) claims that only M.A. students are informed and competent enough to take accounting ethics courses.

As for Turkey, which is at the very beginning of accounting ethics studies, considering that ethical principle plays an essential part in any profession, one can claim that accounting ethics should be taught both at B.A. and M.A. levels, for only a small number of students graduating from the faculty of economics and business administration sciences in Turkey do their post-graduate studies in accounting. Therefore, if accounting ethics is not given to B.A. students, they will be left uninformed of ethi-

cal principles in accounting profession while working for public and private sectors, which means they will be vulnerable in their professional lives to problems deriving from ethical issues, which makes it ideal to teach ethics included in business administration, accounting, and finance courses in the first and second classes and to design a separate accounting ethics course as elective or obligatory in the third and fourth classes (Daştan 2009: 303). Since students in business schools decide on their field of specialization in the third class, "Accounting Ethics" should be taught to those who want to major in accounting.

At M.A. level, since students are more informed and competent, and since the post-graduate programs are more flexible, apart from advanced level accounting ethics practices students should be taught about how to teach "Accounting Ethics," for subjects of accounting ethics give students and academic perspective furnishing them with the ability to analyze and evaluate. Post-graduate students should be taught "accounting professional ethics" and "accounting ethics education" to major in accounting (Daştan 2009: 305).

3.4.3 Should Accounting Ethics Be Taught as a Separate Course or Be Included in the Contents of Other Courses?

Several studies aimed to discuss whether accounting ethics should be taught as a separate course or be included in the contents of other classes to reach the desired goals in accounting ethics education at universities (Swanson 2004; Philips 2003; Blanthorne et al. 2007; Loeb 1988; Loeb and Rockness 1992; Mintz 1990). It is quite natural that there are some disagreements among the researchers deriving from different approaches directed toward the issue by accounting associations and universities (Balsarı and Öz 2011). With the approach of integration of accounting ethics with the existing curriculums, American Accounting Association, in a regulation made in 2005, made it compulsory for those who want to sit for CPA exam to take at least 3 credit business ethics course and another 3 credit accounting ethics course. At some universities that are the members of the Association of Universities, academics embraced the idea that ethics should be taught as a separate course (Blanthorne et al. 2007) whether accounting ethics should be taught as a separate course or be integrated with accounting courses has long been discussed by researchers (Loeb 1988, 1994, 1998; Oddo 1997; Mintz 1990; Loeb and Rockness 1992; McNair and Milam 1993). Those who hold the idea that ethics should be taught separately suggest that only in this way can students be acquainted with ethical issues in accounting, which will make it easier to include ethics education in accounting schedules (Loeb 1998). On the other hand, Oddo (1997) claims that teaching ethics as a separate course may create a problem: Students may not recognize the relationship between accounting and ethics. Mintz (1990) asserts that integrated ethics courses will make students informed of the relationships between ethics and other disciplines. Another problem

with a separate ethics course is that program designers may have difficulty with the material, course contents, and time (Loeb 1998: 323). Embracing both ideas, McPhail (2001) focuses on the uses of ethics education in accounting. He claims that ethics education will help accountants, who are insensitive of the other and detached from the society due to the nature of their job, to develop their sense of empathy (Balsarı and Öz 2011).

Unfortunately, this question, which has received considerable academic and scientific attention abroad, has been neglected in Turkey. Turkish researchers dealt only with the nature of the problem instead of suggestion solutions like how to teach ethics in accounting. Karaibrahimoğlu et al. (2009: 543) conducted a study on two universities' students dealing with ethical behaviors in accounting in Turkey. Most of their samples rejected the idea of teaching ethics at universities as separate courses, which, according to the authors, is significant and do not support the ideas and findings revealed by the other studies. Altuk (2006: 58) conducted a questionnaire on 228 students at two universities, concluding that 76.8% of the participants said they did not have separate ethics course in their departments, and 12.3% said they did. A study conducted by Çalıyurt (2007) on 135 academics at various state universities focusing revealed that 104 of the participants were against the idea of teaching ethics separated from accounting classes.

Research studies show that both approaches have their strengths and pitfalls. The best approach for Turkey, this study suggests, is departments design courses under the name of "Business Ethics" for the first two years to teach the general knowledge of ethics and another course with the name of "Accounting Ethics" for the third and fourth classes.

3.4.4 What Teaching Methods and Techniques Should Be Used?

The problem to be solved during the accounting ethics education is to decide on the most appropriate and efficient teaching methods and techniques. Studies already conducted suggest some solutions to this problem. Among these are to teach ethics theoretically at the beginning then to move to class discussions and sample cases (McNair and Milam 1993; Armstrong and Mintz 1989; Karnes and Sterner 1988), role plays, and simulations. According to a study by Armstrong and Mintz (1989), 20% of the instructors arguing that ethics should be used as a separate course prefer the method of lecturing, 30% of them prefer visiting professionals as lecturers, another 30% prefer both lecturing and teaching by cases, and 10% prefer only cases. McNair and Milam claim that more than 90% of university professors teaches ethics in theory. Another study conducted by Blanthorne et al. (2007: 381) reveals that lecturers prefer case analyses in their classes.

Only one study conducted by Kiracı and Elitaş (2009) dwelt on the methods and techniques of teaching ethics in Turkey. This study revealed that teachers prefer

lecturing at a rate of 49%. The reason why very few studies, when compared to other countries, have been conducted in Turkey on this matter is that teaching ethics has not derived enough attention from academic circles. Academic studies and discussions on this issue will have a way to the future practices of teaching ethics in accounting in Turkey.

It is noteworthy to repeat that case studies, and role plays are the methods most preferred by instructors to teach accounting ethics. This study suggests that by extending the teaching accounting ethics from MA classes to B.A. and associate degree classes, Turkish students at Turkish universities should be made familiar with general concepts like ethics and morality and others like professional ethics and principles. After this stage, the use of case analyses will help students appreciate the problems and dilemmas of ethics probably to be faced in their professional lives.

Of course, these methods are not problem free. In case of analyses technique, the most critical problem has been the scarcity of material. To alleviate this problem, as has been done in developed countries, cooperation with auditing firms and other professional institutions to design materials inspired by cases. Developed countries already use such materials. Among these are Cases in Accounting Ethics & Professionalism by Mintz Steven M (New York: McGraw-Hill Publishing Company, 1990), *Ethics and the Accountant: Text and Cases* by Windal, Floyd W, (New Jersey: Prentice-Hall, Inc., 1991) and *Ethics in the Accounting Curriculum: Cases and Readings* designed by American Accounting Association (AAA) with 13 cases. A coursebook like the one designed by AAA can be prepared jointly by TÜRMOB (Union Chambers of Certified Public Accountants and Sworn in Certified Public Accountants of Turkey) and independent auditing firms in Turkey. This book should focus on ethical and unethical cases from the real life to make students familiar with problems and their possible solutions.

The methods and techniques mentioned are just some of the alternative ways of teaching accounting ethics and instructors should choose one or more of them considering their conditions and opportunities, which is in line with the motto by Stephen Loeb (1988: 324) cited from A Report by The Hastings Center (1980: 68): "Teaching is an art: there are no guaranteed ways to teach courses on ethics, any more than other courses, successfully."

3.5 Conclusions and Recommendations

This study, emphasizing the need for the teaching of accounting ethics in Turkey, dealt with the evaluation of teaching ethics in accounting education within the frame of opportunities and challenges concerning the studies conducted worldwide. The study concluded that the socioeconomic structure of Turkey, lessons gleaned from crises breaking out across the world, and comprehensive adaptation of international accounting standards could be considered the most critical opportunities. The challenges are who will teach accounting ethics, what methods should be used, and at what level accounting ethics should be taught. The suggestions are as follows:

- In Turkey, accounting ethics should be taught at a basic level in B.A. classes and an advanced level in MA classes.
- Accounting ethics curriculum at B.A. level should include general accounting, business administration and auditing from a general perspective, and the curriculum in upper classes should be extended with courses like "ethics in accounting," "accounting professional ethics," This will make it possible to furnish students with some basic knowledge of accounting ethics, which will guarantee the course outcomes.
- At M.A. level, students study ethical judgment, communication, and analytic decision-making. Furthermore, "teaching of accounting ethics" should be included in the course program to get students prepared for future teaching practices.
- The accounting lecturers should teach ethics with a philosophy background. In case of any difficulty, teamwork by inter-disciplinary cooperation will solve the problem.
- Regarding materials in teaching accounting ethics, cases from the real professional life would be the best ones. To get students, participate in class discussions actively, visual materials should be used and managers from the world of business and that of accounting and auditing, people implicated in unethical plots in companies and other professional circles should be invited to classes, which will get students exposed to real-like conditions from the outside professional world.

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Chapter 4
The Relationship Between Corporate Social Responsibility and Earnings Management In Terms of Accounting Information Quality

Uğur Kaya and Ömer Yazan

Abstract Accounting applications have partial flexibilities to have the capability to adapt different conditions. This situation gives executives the ability to make it look like the business' activity results are different than they actually are. Manipulations such as earnings management decrease the accounting information quality, which consequently causes users of financial statements to make deficient or erroneous decisions and this negatively affects an important portion of the society. Businesses claim that corporate social responsibility is a manifestation of transparent and accountable administrative practices. Therefore, an outcome of corporate social responsibility should be providing the public with reliable financial statements. In that case, it can be expected that assuming a corporate social responsibility based point view should in turn limit the manipulation of financial statements through the usage of earnings management applications, at least to a degree. Because of the fact that corporate social responsibility can be an inhibiting factor for earnings management, the quality of the information presented to the interest groups might also increase. This study aims to reveal the relationship between corporate social responsibility and earnings management according to accounting information quality.

Keywords Corporate social responsibility · Earnings management
Accounting information quality · IAS/IFRS

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4.1 Introduction

Interest groups in profit-oriented businesses are not only affected by the activities of the business, but they also affect businesses with their decisions and practices based on these decisions. In this context, it can be said that interest groups have an indirect power of sanction over the activities of the business. Corporate social responsibility serves as a balance to this power by using effective practices on interest groups of the business, other portions of the society, and the natural environment. Corporate social responsibility places emphasis on the fact that practices of the business are transparent, accountable, and socially acceptable and preparation of reliable financial statements is expected to be a natural outcome of this (Tilt 2009: 19). For this reason, social responsibility is viewed as a factor that increases the accounting information quality that provided to the interest groups.

Business executives use a method of accounting manipulation, called earnings management, to overstate or understate a period's profit. Earnings management is used to increase the market value of stocks during initial public offerings or when stocks are sold via capital increases, and it is also used to make it seem like the old administration was unsuccessful when a change in administration occurs. Similarly, earnings management can also be used for achieving goals such as making it look like the business will profit more in the future, gaining the upper hand in credit agreements or collective contracts with unions, and paying fewer taxes in some periods, etc. (Mulford and Comiskey 2002: 61). Earnings management applications used for the reasons decrease the reliability of financial statements and the accounting information quality. This is because accounting information quality has the characteristics of being reliable, confirmable, comparable, and befitting to needs and reality. Since earnings management applications decrease the characteristics of accounting information, it is suggested that the accounting information quality can only be increased by decreasing the number of such applications (Barth et al. 2008: 469).

It is expected that the financial statements will be prepared more realistically and reliably as a result of the effects that corporate social responsibility has on accounting information. It is suggested that earnings management has an inhibiting effect on earnings management in this context (Chih et al. 2008; Gargouri et al. 2010; Yip et al. 2011).

To this end, this study has initially defined the concepts of corporate social responsibility, accounting information quality, and earnings management and examined the relationship between earnings management and IAS/IFRS which globally directs accounting applications. Later, it was attempted to determine the relationship between the concepts of corporate social responsibility, accounting information quality, and earnings management within the context of the literature review.

4.2 The Concept of Corporate Social Responsibility

Corporate social responsibility has been defined in different ways ever since it was first established and because of this, a consensus over its definition has not been reached. Nonetheless, some of the definitions in the literature were included below to define the concept in question broadly.

Bowman (1973: 4) defines corporate social responsibility as "*ensuring that the business and its shareholder's profit in the long term.*" Bowman stated that since businesses produce products that are needed by and that can be purchasable by the society, using limited production factors such as raw resources, land, workforce, and equipment, they are fulfilling their responsibilities by profiting because of these activities. According to Bowman, corporate social responsibility is a profitability-based approach and thus has a cost/benefit relation, and this includes various economic homogeneities (the effects caused by practices on other economic units). For example; air, water, soil, and sound pollution caused by production results in negative homogeneities/social costs (the harms caused on other economic units by applications) and providing employment opportunities to socially disadvantaged people such as disabled people or ex-convicts result in positive homogeneities/social benefits (benefits created by application for other economic units).

S. Parakash Sethi (1975) divided the actions of businesses in the context of corporate social responsibility into three categories: "*social obligation*," "*social responsibility,*" and "*social awareness*." ***Social obligation*** is defined as obligatory actions of the business caused by market pressure and legal regulations; ***social responsibility*** is defined as actions of the business that are befitting to social rules, values, and expectations beyond social obligation; and ***social awareness*** is not defined by how businesses react to social pressures but as what role will the business be playing on the long term in the dynamic structure of the social system (Carroll 1979: 498).

Archie B. Carroll, in 1979 and the following years (alongside Mark S. Schwartz in 1991 and 2003) defined the concept of social responsibility by classifying it as the entirety of economic, legal, moral, and voluntary social responsibility practices and associated the concept with business performance. In later researches, these studies were viewed as important sources. Most studies that aim to demonstrate the relationship between corporate social responsibility, financial performance, and profitability of business have followed after Carroll's "*corporate social performance*" focused study (Van Het Hof 2009: 11). For this reason, Carroll's corporate social responsibility modeling is examined in detail in the later chapters of this study.

McWilliams and Siegal (2001) defined corporate social responsibility as "*socially beneficial applications prescribed by law*"; Johnson and Scholes (2002) defined it as "*meeting the demands of the interest groups beyond the minimum level*"; Wheten (2002) defined it as "*moral and quality business practices that fulfill the expectations of interest groups*" (Banerjee 2007: 16); European Union Commission (2002) defined it as "*a concept that states the need for businesses to carry out their activities and their relations with interest groups while being considerate of social and environmental effects, without being obligatory (voluntary)*" (Crowther and Aras 2008:

11); and Kotler and Lee (2005: 3) defined it as "*an agreement between businesses and employees and groups in the business area and the general public, which ensures that their economic growth is sustainable.*"

By using definitions and explanations presented above, **corporate social responsibility** can be defined as: "*administrative awareness and practices that are assumed voluntarily or due to economic or legal imperatives, moral obligations that aim to have the businesses meet social expectations, and be mindful and be harmonious with natural environment from the start and to the end of their activities and beyond to their possible effects.*"

4.3 Definition of Accounting Information Quality

Dechow and Schrand (2004) defined accounting information quality as[1] "*accounting information that fully reflects the status of success in all current business activities*" and added that this information should be able to "*help to estimate future performance of the business and to calculate the value of the business.*" This definition focuses on the acceptability, transparency, and reliability of the financial statements and benefits that of the decisions taken using these financial statements provided to the information's user (Hribar et al. 2010: 9). Callen et al. (2012) used accounting quality and accounting information quality interchangeably and defined the concept as "*explicitly informing the investors, who provide capital to the business, of future cash flows by using financial statements.*" Pounder (2013: 18) stated that conceptual definitions in the literature have a common point: "*ensuring that users of financial statements utilize the information within the tables according to the true values stated by the accounting information.*"

Thus, in the chapter of *Conceptual Framework for Financial Reporting* of IAS/IFRS, accounting information quality is emphasized, stating "*the characteristics that accounting information within financial statements needs to have in order to be beneficial.*" Primary qualitative characteristics that accounting information needs to have, in a conceptual framework, are considered to be: *relevance* (the accounting information having the weight to affect the decisions taken by its users) and *faithful representation* of the subject that in question (presenting economic events fully, objectively, and without error). Supporting qualitative characteristics that can increase the benefit ability of the information are: *comparability* (information on the reporting business being able to be compared to similar information on other businesses or information regarding the business in another period), *verifiability* (independent observers with varying levels of knowledge being able to reach a consensus on the truthfulness of a specific explanation), *understandability* (the information is classified as clear and understandable in its definition and presentation) and *timeli-*

[1]Concepts of accounting quality, financial reporting quality, and financial information quality are used in similar denotations in the literature (see also Verdi 2006; Callen et al. 2012), and the term accounting information quality is used in this study.

ness (the information is available at the time when it can affect the decision) (http://www.iasplus.com/en/standards/other/framework).

As indicated by these definitions, excellent accounting information quality is a result of reliably and adequately preparing and presenting the information on financial statements.

4.4 The Relationship Between Earnings Management, Accounting Information Quality, and IAS/IFRS

As an accounting manipulation method, earnings management directly affects the accounting information quality, and in turn, it is affected by IAS/IFRS, which globally directs current accounting applications. For this reason, the following chapter of the study has defined the concept of earnings management and later, examined its relationship with accounting information quality, and IAS/IFRS was examined.

4.4.1 Earnings Management and It's Types

There are many definitions regarding earnings management in the literature. According to some of these definitions, earnings management is:

- Taking income to the desired level through the use of some intentional accounting applications, while also staying within the boundaries set by Generally Accepted Accounting Principles, and reporting the income at this level (Beattie et al. 1994),
- Selecting and applying accounting policies from the accounting standards set that can take the business' market value to the maximum level and be the most beneficial (Scott 1997),
- Use of personal judgment by executives when creating financial reports to misinform shareholders about the performance of the business and using such accounting procedures to affect various agreements, such as loaning or determining the executive wages (Healy and Wahlen 1999),
- It is a useful type of accounting manipulation that is consistent with the business income numbers predicted by executives or financial analysts; it matches predetermined goals and it will show stability in due time (Mulford and Comiskey 2002).

Based on these definitions, **earnings management** can be stated as a type of *accounting manipulation that is based on "scheduling" incomes and expenses, which allows a business to increase or decrease a specific period's income to meet predetermined goals and it is done by taking advantage of specific alternatives, flexibilities or loopholes presented to businesses by accounting regulations.*

Earnings management is seen as a method of accounting manipulation, and it is used often to meet many goals. Thus, Kellog and Kellog (1991) stated that earnings

management has two primary goals: directing investors to buy the business' stocks and increasing the market value of the business (Stolowy and Breton 2000b: 4). While it is known that earnings management has different classifications in the context of their characteristics, the most common ones seen in the literature are as follows: *income smoothing*, *aggressive accounting, and significant bath accounting* (Mulford and Comiskey (2002: 3).

i. ***Income Smoothing***: This represents the act of ensuring that a period's reported income is at the desired levels by decreasing unexpected changes that might occur in the income (Beattie et al. 1994: 793). This type of earnings management makes it seem like business' profitability is increasing steadily and uninterrupted (Stolowy and Breton 2000a: 18). This is done by transferring income from periods where income is increased to the periods where the income is decreased and by doing so, unexpected increases or decreases in profitability are eliminated (Mulford and Comiskey 2002: 3). This is done to present an appearance that income flows are less risky (Mulford and Comiskey 2002: 49).
ii. ***Aggressive Accounting***: This represents accounting practices that intentionally strain accounting principles and standards and make use of flexibilities at a minimum level to achieve desired financial results, such as high levels of income (Mulford and Comiskey 2002: 3). These applications are designed to deceive financial statement users, and since they are difficult to reveal without the intervention of individual prosecutions, they are not perceived as accounting tricks (Mulford and Comiskey 2002: 15).
iii. ***Big Bath Accounting***: These are more apparent earnings management applications done by bending accounting principles, and it represents registering some entities lower than their actual values to simplify (purify) balance sheets in weak periods. Healy (1985) defined the process of decreasing the income of the business by delaying some revenues and taking the option of writing off expenses as the *strategy of taking a bath*. It can be said that this statement constitutes the basis of the concept (Stolowy and Breton 2000a: 44). Since it is expected of businesses to have less revenue in poor periods, the income of the business can be made to look like it is even lower without drawing any attention by taking advantage of this (Mulford and Comiskey 2002: 33). By making it looks like the income of the business was lower than it was, a top executive who is leaving the business or a newly appointed top executive can use the cleanup accounting method in the first years of their employment to point out that the previous management was unsuccessful (Stolowy and Breton 2000a: 76).

4.4.2 The Relationship Between Earnings Management and Accounting Information Quality

Accounting applications have partial flexibilities to have the capability to adapt to different conditions. This situation gives executives the ability to make it look like

the business' activity results are different than they are. Manipulations such as earnings management decrease the accounting information quality, which consequently causes users of financial statements to make deficient or erroneous decisions and this negatively affects an essential portion of the society.

Imhoff (1992) stated that there is an essential relationship between profits and accounting information quality and added that when businesses declare profits while having high accounting information quality, unexpected new profits might emerge. This study shows that accounting information quality has an increasing effect on actual profit for the period. However, earnings management turns the profit for the period from "actual" to "what it should be."

Dechow and Skinner (2000: 235) stated that the concepts of "*increasing the financial reporting quality*" and "*accounting quality*" have come into usage in relation with the emergence of earnings management as a problem in the years 1998–99, and its adverse effects on businesses and their environments came under scrutiny. This study shows that the concepts of earnings management and accounting information quality are negatively related. In this context, decreasing the use of earnings management increases the accounting information quality and increasing the usage of earnings management decreases the accounting information quality.

Biddle and Hilary (2006) pointed out that increasing the accounting information quality decreases the information asymmetry between executives and investors who provide capital to the business, and it also prevents specific financial prohibitions on capital investments; both factors leading to healthier and more productive investments. In the same direction, McNichols and Stubben (2008) asserted that by decreasing the accounting information quality, earnings management increases the information asymmetry and this causes capital investments made on the business to become less efficient.

Barth et al. (2008: 469) stated that great accounting information quality is achievable by decreasing the prevalence levels of earnings management. To measure the accounting information quality, researchers thus started examining periodical changes in earnings management and how well can losses related to this be detected in time and how well can account records represent the actual values that they are based upon.

Ajina et al. (2016) suggested that businesses that employ earnings management tend to make the readability levels of their yearly reports more complex. This situation decreases the accounting information quality.

4.4.3 The Relationship Between Earnings Management, Accounting Information Quality and IAS-IFRS

In the literature of earnings management, the relationship between accounting standards and earnings management (and accounting information quality) is represented by two opposing views. According to first view, starting the application of account-

ing standards limits an executive's ability to opportunistically use their discretionary powers over financial transactions, thereby leading to reduced levels of applications such as earnings management, which consequently leads to more reliable financial statements (Nicolaisen 2005; Sellhorn and Gornik-Tomaszewski 2006; Barth et al. 2008; Dimitropoulos et al. 2013; Houqe et al. 2014). According to the second view, flexibilities intrinsic to the accounting standards and applications that involve subjectivity create significant opportunities for earnings management for businesses. Researchers who assume this view either assert that accounting standards increase the prevalence of earnings management, which consequently decreases accounting information quality or that there was no correlation detected (Ewert and Wagenhofer 2005; Tendeloo and Vanstraelen 2005; Lin et al. 2012; Christensen et al. 2015).

Ewert and Wagenhofer (2005) examined the claim that accounting standards will reduce the prevalence of earnings management and provide capital markets with more valid information. According to the results of this research, stricter application of accounting standards increases the profit quality. However, this situation can lead to three negative consequences. First, increasing quality of profit will increase the marginal benefit of the earnings management applications, which is done through real business activities and is difficult to reveal by examining accounting records; second, stricter application of accounting standards will increase the prevalence of earnings management rather than decreasing it; and third, the costs of earnings management will increase.

Tendeloo and Vanstraelen (2005) suggested that accounting standards that are in an application with the claim that they increase the quality and usability of financial reports do not affect preventing earnings management.

Nicolaisen (2005) claimed that financial reports created by practices that are based on accounting standards would be higher in quality in regard to their comparability, transparency and full explanation; however, he also stated that investigations have detected that there is an international variance in the perception of prudence and earnings management applications based on such perceptions (Sellhorn and Gornik-Tomaszewski 2006).

In their study which examined how applications that are based on accounting standards affect the accounting information quality, Barth et al. (2008) determined that, after starting the application of accounting standards, the practice of earnings management becomes less prevalent in comparison with businesses that do not do reporting according to standards, the losses can be detected in time, and accounting values and the real values represented by those values are closer to each other.

Between the years of 2005 and 2011, Ertan (2011) examined businesses in Turkey that do their reports pursuant to IAS-IFRS and it was found through this research that accrual quality, which is characterized as a part of standards-based accounting practices and accounting information quality, was decreased; however, the prevalence of earnings management applications that aim to stabilize profits also was also decreased.

As a result of their study, which compared applications that are based on Generally Accepted Accounting Principles and applications that are based on accounting standards, Lin et al. (2005) have stated that prevalence of earnings management appli-

cations increased as a result of accounting standards. They claimed that for periods that follow standard applications in the very same businesses, there are significant decreases in accounting information quality.

Dimitropoulos et al. (2013) researched the effects that accounting standards-based practices in Greece have on accounting information quality. According to the results of their research on businesses that are active in the Athens Stock Exchange, practices that are based on accounting standards decrease the prevalence of earnings management applications further in comparison with local accounting applications, and it allowed businesses to detect their losses in a timelier manner, and their accounting values represented actual values better.

In their study of France, Germany, and Sweden—countries that they claim to be less protective of investors—which covered the period between 2003 and 2011, Houqe et al. (2014) determined that obligatory application of accounting standards has advanced the accounting information quality.

Christensen et al. (2015: 56–58) have examined the relationship between accounting standards and accounting information quality. According to the results of this study, accounting standards do not result in significant increases in the accounting information quality. Also, it was suggested that making accounting standards obligatory and encouraging businesses to focus on doing reports that are according to the accounting standards, as opposed to focusing on the quality of standards, will have significant effects on increasing the accounting information quality.

As suggested by the researches above, earnings management is closely related to accounting standards in the context of accounting information quality. In the following portion of this study, IAS/IFRS examples that were deemed to be related to the relationship in question were given, and it was attempted to determine how businesses can carry out earnings management applications by taking advantage of the provisions of these standards.

IFRS 13 "*Fair Value Measurement Standard*" asserts that businesses can use various assumptions and predictions when measuring the fair value that they must use as a basis for various processes. This standard contains the following clause: "*When measuring the fair price, it is assumed that the transaction is carried out at the date in question while also taking the point of view of the market participant who holds the entity or the liability, even in the event that there are no observable markets which can provide a pricing information for the sale of an entity or assignment of a liability in the date of measurement. When predicting the price of sale or assignment of liability, the transaction in question forms the basis.*" This statement shows that, in businesses, fair value measurements for various accounting transactions, such as acquisition or valuation of assets or debts, can be done based on personal judgments such as assumptions, viewpoints, or predictions (http://www.ifrs.org/use-around-the-world/education/fvm/documents/educationfairvaluemeasurement.pdf).

It is claimed that basing accounting transactions on actual values can trigger financial crises. Topbaş (2009: 56) stated that accounting applications that are based on mark-to-market could cause more losses to be shown on the financial statements of banks that are under different market conditions, and bank losses increased in such a way can put a strain on the financial system and become a contributing

factor in a crisis. Can (2010: 36–38) stated that fair value caused a departure from the original concepts and principles of accounting—especially the concepts of cost basis and prudence—and suggested calculation values for the events that have fair value cannot be determined are based on subjective criteria. He added that fair value valuations increase profits in the periods when the market is rising; however, it decreases the profits in the periods when the market is dropping, and this situation triggers financial crises. In the same vein, the fact that it might become necessary for business executives to make assumptions or predictions during the measurement of the fair value can be viewed as one of the factors which enable earnings management.

IAS 8 "*Accounting Policies, Changes in Accounting, Estimates, and Errors Standard*" defines accounting policies as certain principles, fundamentals, traditions, rules, and applications that are used by businesses in the preparation and presentation of financial statements. Accounting policies are expected to be consistent throughout periods, but a policy can be changed "*if the new policy can ensure that the effects of transactions and events in cash flow, performance or the financial status of the business are properly and reliably reflected on the financial statements*" (Deloitte, IAS 8 2017). Businesses can provide reasonable grounds for such changes and might even prefer them, and as a means for earnings management, they can affect cash flows and change the profit for a period. However, it is important to remember that retrospective effects of such changes must be corrected.

IAS 8 states that due to uncertainties in businesses, many financial statement items cannot be adequately measured and can only be estimated. In the context of standards, bad debts, inventory obsolescence, fair value of financial assets, and liabilities, useful lives of depreciable assets or how the economic benefits of these assets can be taken advantage of in the future can all be examples for accounting predictions (Deloitte, IAS 2017). By causing qualitative value motions that can significantly affect the profit of a period, the predictions in question can be used as means for earnings management. For example, the fact that predictions of the business administration are used when determining a factor, such as useful life, will affect the amount of depreciation will be paid, which in turn will affect the profit of a period, which in turn allow discretionary alterations on the accounting information quality.

IAS 16 "*Property, Plant and Equipment Standard*" gives businesses the chance to employ subjective judgments and predictions. For example, the standard gives the discretionary business power over changing the useful life of an asset, which is used in the calculation of depreciation based on the expected benefit from the asset in question. The residual value must be deducted from the cost of the asset to determine the depreciable value. Calculating the residual value is also a factor in which the business needs to use predictions. Residual value is calculated by deducting the predicted breakup value from the value which will be gained by disposing the real asset at the end of its predicted useful life. The standard states that, at the end of each fiscal period, residual values and useful lives should be reviewed and if the predictions are different from the expectations of the business, adjustments must be made to the predictions (Deloitte, IAS 16). Therefore, by providing the justification that expected economic benefit has changed, useful life and depreciation amount corresponding to the useful life can be changed. IAS 16 takes three depreciation

calculation methods into account: straight-line method, declining balance method, and unit of production method. These methods must be reviewed at the end of each fiscal period, and they must be applied consistently by period if there are no changes in the expenditures of the benefits garnered from the asset (Deloitte, IAS 16 2017).

Considering that economic benefit expected from the asset is determined according to the prediction of the business, depreciation method employed with the justification that the benefit in question has changed can provide opportunities for earnings management.

Again, according to IAS 16, when calculating the value of a cash-generating asset, the positive and negative cash flows that will be generated by the asset in the future and discount rates under the future cash flows must be predicted (Kaya and Dinç 2007: 346). The prediction in question leaves room for earnings management applications as it involves personal judgment.

Issues given above are also relevant for IAS 38 "*Intangibles Asset Standard*." Therefore, some IAS 38 provisions also provide opportunities for businesses to employ earnings management.

However, IAS 16 stipulates revaluation of real assets according to changes in the fair values, while IAS 38 does the same for intangible assets. The standards in question define the concept of fair value as "*the price which will be paid when an asset is sold, or liability is transferred between market participants at the date of measurement through an ordinary transaction*" (Deloitte, IAS 16; Deloitte, IAS 18).

On the other hand, the recoverable amount, which will be used when impairments are detected with real or intangible assets, is calculated according to fair value, pursuant to *IAS 36* "*Impairment of Assets Standard,*" and this is explained as "*the greater amount between value of use and the value calculated by deducing sale costs from the assets' fair value*" (Deloitte, IAS 36 2017). The scales such as "fair value" and "recoverable amount" used in IAS 16, IAS 36, and IAS 38 are terms that a business executive or an accountant can employ personal discretion when they are being used, albeit partially (Kaya and Dinç 2007: 361). Calculation of these scales through personal judgment provides opportunities to use earnings management.

IAS 23 "*Borrowing Costs Standard*" states that interests and other incurred debts that can be directly related to the acquisition, construction, or production of assets that take a long time to be readied or used (qualifying assets) must be considered a part of such assets. In this situation, the debt costs in question must be activated, and other debt costs that are not within the scope of this must be accounted as expenses. The standard provides general guidelines on under which conditions will the debt costs be activated and under which conditions they will be written off as expenses. For example, when transactions regarding an asset, which is considerably ready for usage or sale, are put on hold for long periods, the debt costs incurred by holding the asset must be written off as expenses when the asset is finished. After the asset is readied for use or sale, costs of small changes made according to the demands of the customer will also not be activated (Deloitte IAS 23 2017). However, businesses that desire to make its profit for the period look greater than it. Actually it will abuse such conditions and activate these debts. Similarly, to make the profit for the period look smaller than it is, debt costs can be written off as expenses.

One of the most common earnings management methods is to do more or fewer provision allocations than what the amount should be (Mulford and Comiskey 2002: 65). For this reason, in the following section of the study, the relationship between earnings management and regulations on provisions included in IAS/IFRS will be examined.

The most comprehensive regulations on provisions are given in IAS 37 "*Provisions, Contingent Liabilities and Contingent Assets Standard*." The standard in question defines the factors which, if they are realized, will cause economic resource outputs due to past activities of the business, as *liabilities*, while it defines the concept of *the provision* as, "*liabilities with undetermined realization times or amounts*." The standard provides certain conditions for a provision to be reflected on financial statements: There must be a leftover liability from past events; an economic resource output must be highly likely if this liability is realized; and it should be possible to estimate the amount of the liability reliably. Standard also states that if provisions include more uncertainties than other items in the balance sheet, it is necessary to use predictions and "*since businesses have the means to determine a set of possible results, they must use reliable predictions for the process of allocating provisions*." Thus, *IAS* 37 requires that, if a reliable prediction cannot be made, the liability must be recorded as a contingent liability instead of as a provision, and this must be explained in the footnotes, not in the financial statement accounts. This approach indicates that earnings management applications that alter the profits for a period by allocating more or fewer provisions than the actual amounts were foreseen in *IAS* 37.

Under the title "*Risks and Uncertainties*," the 43rd paragraph of IAS 37, the standard refers to earnings management. In this paragraph; "*Risk describes the variability of outcome. A risk adjustment may increase the amount at which liability is measured. Caution is needed in making judgments under conditions of uncertainty so that income or assets are not overstated, and expenses or liabilities are not understated. However, uncertainty does not justify the creation of excessive provisions or a deliberate overstatement of liabilities. For example, if the projected costs of a particularly adverse outcome are estimated on a prudent basis, that outcome is not then deliberately treated as more probable than is realistically the case. Care is needed to avoid duplicating adjustments for risk and uncertainty with consequent overstatement of a provision*" (IAS 37 2018).

This title emphasizes that certain risks and uncertainties must be considered when realistically predicting provisions and uncertainties cannot be used as justifications for over-allocating provisions, which means that intentionally decreasing profit for a period should not be used as a means for earnings management.

As it can be gathered from the explanations above, the fact that standards developed with the claims that they are increasing the quality of accounting can actually decrease the quality of the information given in financial statements must be kept in mind, as earnings management practices can be accomplished through abuse of the prediction and discretion powers granted to business executives by IAS/IFRS.

Businesses can alter period profits by employing earnings management application to reach various goals, which in turn decreases the accounting information

quality, which in turn negatively affects the portion of the society who uses financial statements. In addition, how corporate social responsibility applications that businesses employ with justifications, such as meeting the expectations that interest groups have for receiving more detailed information business activities or legitimizing the business in the eyes of such groups, etc., effect accounting manipulation methods such as earnings manipulation, and how these applications consequently affect the accounting information quality will be examined within the context of literature.

4.5 The Relationship Between Corporate Social Responsibility and Earnings Management

As both corporate social responsibility and earnings management applications are focused on managing relations with interest groups, it is suggested that these concepts might be related to each other.

Prior et al. (2008) related the concept of earnings management with the cost of representation. In this study, it is stated that business executives might alter financial statements to avoid informing the business owners of the facts to evade possible losses resulting from financial failures. It is claimed that, due to this very reason, various interest groups, such as sharers or lenders, do not trust executives, thereby decreasing value that stocks hold on the capital market and leading to increased debt costs. According to the study, business executives employ corporate social responsibility practices to positively affect the views that interest groups hold about the business and provide themselves with the space necessary for earnings management. Therefore, corporate social responsibility applications are means for earnings management, and it is expected that the number of such applications will increase proportionally with earnings management.

In a manner that is complementary to the research above, Beaudoin (2008) related earnings management with the problem of representation. In the study, it was determined that in the event of a representation problem between business executives and owners, the executives focus on their interests and employ earnings management to show high profits and increase their bonuses. It was noted that in such businesses, corporate social responsibility decreases the prevalence of earnings management by alleviating the problem of representation by increasing transparency.

Chih et al. (2008) examined earnings management with its sub-dimensions and investigated the relationship between corporate social responsibility, practices that show lower than actual profits and practices that show higher than actual profits. The results of the research have shown that increased amount of corporate social responsibility applications led to decreased amounts of lower than actual profits earnings management applications. However, it also led to increasing amounts of higher than actual profits earnings management practices.

Gargouri et al. (2010) have examined social performance and earnings management practices. This research has detected a positive relation between environment and employee-based social performance and earnings management, and this situation is interpreted usage of profit alterations to cover-up decreased financial performance which is the result of the high costs of an employee-based and especially environment-based practices.

Yip et al. (2011) assumed that corporate social responsibility reporting and earnings management have a relationship, and this relationship is affected by the political environment of the business and ethical valuations of the executives. As a result of their study, they have noticed a significant relationship between corporate social responsibility and earnings management. It was noted that the relation in question is affected by the political environment of the business but not by ethical valuations.

In their study that is based on publicly held corporations that have stocks active in stock exchanges, Khajavi and Bayazidi (2011) have detected a negative relationship between corporate social responsibility and earnings management.

Kim et al. (2012) asserted that if business executives view corporate social responsibility practices as a moral imperative, they will prepare more transparent financial statements, which will help avoiding earnings management. The study claims that if executives use such social practices to affect the opinions of the interest groups positively, financial statements might be prepared unrealistically, thereby increasing earnings management. The study has detected a negative relationship between social reporting endeavors and earnings management.

Scholtens and Kang (2012) claimed that there is a negative relationship between corporate social responsibility and earnings management. To this end, they have conducted a study, which has proven that there is a negative relationship between the two applications.

Bozzolan et al. (2015) stated that there is a negative relationship between the application levels of corporate social responsibility and the usage of earnings management strategies.

Gras-Gil et al. (2016) remarked that corporate social responsibility affects the corporate decision-making process ethically and morally, it positively increases the reputation of the business, and by extension, it negatively affects earnings management.

4.6 Corporate Social Responsibility and Earnings Management Relationship in the Context of Accounting Information Quality

It is stated in the literature that there is a negative relationship between a method of accounting manipulation, earnings management, and the accounting information quality (Imhoff 1992; Dechow and Skinner 2000; Biddle and Hilary 2006; McNichols and Stubben 2008; Barth et al. 2008: 469). Therefore, if corporate social responsibility decreases the prevalence of earnings management, accounting information quality

will increase consequently. In this context, the studies on the relationship between corporate social responsibility and earnings management presented above indirectly refer to accounting information quality.

A positive relationship between corporate social responsibility and earnings management (Prior et al. 2008; Gargouri et al. 2010) leads to decreased accounting information quality while a negative relationship between them (Beaudoin 2008; Chih et al. 2008; Khajavi and Bayazidi 2011; Kim et al. 2012; Scholtens and Kang 2012; Bozzolan et al. 2015; Gras-Gil et al. 2016) leads to increased accounting information quality.

Also, McDermott (2012) examined the relationship between accounting information quality and corporate social responsibility. This study asserts that business executives can invest in corporate social responsibility to advance their interest and that this situation is related to the accounting information quality. Results of the study have shown that this problem decreases in businesses that have high accounting information quality. This is because, in these businesses, accounting information presented to the interest groups is more reflective of the actual situation, which allows these groups to exert more indirect control. It is stated that in such businesses, corporate social responsibility investments are used more effectively, and this situation positively affects the future financial performance of the businesses in question.

4.7 Conclusion

Interest groups that are directly or indirectly affected by the activities of a business manifest as power factors, whose demands cannot be ignored and who can use pressure to limit activities that harm people or the environment. It can be said that the corporate social responsibility concept is employed to balance or "*persuade*" this factor of power (Fleming and Jones 2013). It is claimed that social responsibility applications of businesses necessary for compensating the adverse environmental or social effects that the businesses cause and these applications render themselves and the social environment sustainable (Gürol et al. 2010: 141)

The indirect control exerted by interest groups over business activities has emphasized transparent and accountable administrations. Business administrations that assume this view are expected to prepare and present reliable financial statements. In addition, business executives can use the accounting manipulation method known as earnings management with various goals such turning public opinion in favor themselves and their businesses to increase their reliability in the market, to get bonuses, to make receiving loans easier, to get tax advantages, to increase market value of stocks, to achieve new business opportunities, to sustain their profitability, and so on (Mulford and Comiskey 2002: 61). Earnings management applications are made by providing misinformation or insufficient information, and this decreases the accounting information quality which consequently leads to interest groups making wrong decisions regarding the business (McNichols and Stubben 2008: 1575).

Businesses claim that corporate social responsibility is a manifestation of transparent and accountable administrative practices. Therefore, an outcome of corporate social responsibility should be providing the public with reliable financial statements. In that case, it can be expected that assuming a corporate social responsibility-based point view should, in turn, limit the manipulation of financial statements through the use of earnings management applications, at least to a degree. Because corporate social responsibility can be an inhibiting factor for earnings management, the quality of the information presented to the interest groups might also increase.

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Chapter 5
Understanding Pro-environmental Behaviour of Accounting and Business Students: Development of a Conceptual Framework

Habib Zaman Khan, Johra Kayeser Fatima and Sudipta Bose

Abstract In recent years, many environmental and ecological problems have been witnessed in the globe that calls for increasing attention. Educating both mature and young students together with understanding their behaviours with respect to environmental and sustainability theme and taking appropriate course of actions is perceived important as part of the answering such problems. Given that considerable investment in environmental and sustainability education have been made in educational institutions such as school, colleges and the universities level, the idea of enlightening and encouraging students to initiate and promote environmental behaviours involve many antecedents, moderating and mediating factors, which necessitate further investigation. Against the backdrop, the current study reviews education, social science and sustainability literature and identify different factors that could influence of pro-environmental behaviours for universities students. Triangulating the views based on four established psychological theories such as the Theory of Planned Behaviour (TPB), Social Cognitive Theory, Schwart's Norm Activation Theory and Values-Beliefs-Norms Theory, a theoretical framework has been outlined in the current study to guide future research efforts aimed at exploring sustainability and pro-environmental actions of tertiary students. The framework is also beneficial for the academic community for future empirical investigation.

Keywords Pro-environmental behaviour · Higher education industry
Accounting and business students · Theoretical triangulation · Sustainability

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5.1 Introduction

The goal of achieving sustainability and sustainable development in an economy cannot be achieved without acknowledging and establishing the role and contribution of younger people engaged in pursuing higher education. Because higher education is perceived as key parameter in illustrating and building awareness regarding environmental protection and caring (Zilahy and Huisingh 2009) and because educated people are likely to have more knowledge and awareness of ecological harm (Zsóka et al. 2012), it has been argued that people possessing higher education and scholarship put more efforts for ensuring environmental quality as well as are essentially engaged in displaying environmental friendly activities (Lozano 2006).[1] The reason is that more highly educated individuals, by dint of their advanced knowledge, interests and expertise about natural environment, can involve in environmental friendly behaviour through participating in different environmental caring activities (Fatima et al. 2016, 2017). In the sustainability literature, pro-environmental behaviour is explained as the thoughtful and constructive activities taken by an individual to reduce adverse impact of human activities resulted in improving the quality of the natural environment (Jensen 2002; Kollmuss and Agyeman 2002). Such pro-environmental behaviour is demonstrated through various forms for example, by way of environmental activism (e.g., active participation in environmental associations), through campaigning and pleading on protecting environment or reducing environmental damage. These also include private domain environmentalism through shaping and reshaping behaviour in day-to-day activities, for example, using energy efficient lights to save energy, or using recycled and organic products for consumptions and establishing the solid culture of eco-friendly behaviour within the firms (e.g., involvement in social and environmental activities by employees, and promoting environmental caring activities) (Homburg and Stolberg 2006). While some researchers argued pro-environmental behaviour is well established as eco-friendly behaviour of people (e.g., Ramus and Killmer 2007; Lee et al. 2013), others conceptualized such behaviour as the existence of emotional bondage of people for the environment and subsequently taken care of environment duly (see Caprara and Steca 2007; Lozano et al. 2013).

The higher education has been perceived as solid platform not only to influence but also steer environmental friendly behaviour and activities. Because higher educational institutions are held responsible to educate and advance competent students, a strong nexus of knowledge, skills and individual morals, it is argued that higher educational institutions should not overlook their role and contribution towards promoting environmentally responsible behaviour through initiating and promoting sustainability agendas towards its numerous stakeholders such as students and others

[1] Previous researchers used various terms to describe ecological behaviours that tend to protect the environment. Among others, environmentally concerned behaviours, environmentally acceptable behaviours, environmentally responsible behaviours and pro-environmental behaviours are most noteworthy. In the current study, these terms have been used interchangeably to denote individual people (e.g., students') caring and behaviour to protect natural environment (for details, see Lee et al. 2013).

in academic community (Lozano et al. 2013). Given that tertiary institutions in any country are believed to be 'Supplier' and 'Warehouse' of making future leaders and scholars across different disciplines, if these future scholars demonstrate actions and actively involve activities beneficial to the environment, the society at large, will make progress and contribute towards achieving sustainable development goals. In such case, on a one hand, authorities of universities can create a solid platform for their customers (e.g., students) to acquire the environmental knowledge through various environmental educational pedagogies, events and activities; on the other hand, other educational activities initiated and implemented by the universities relating to sustainability is also perceived focal point in changing lifestyles and attitudes of students' pro-environmental behaviour (Adomssent 2013; Szerényi et al. 2009).

For some disciplines, this issue is even more pressing. For example, students graduating from the accounting and business disciplines are likely to hold the position of chief executives or chief financial officer in their future professional career where sustainability, corporate responsibility towards natural environment and community would be their key opportunities and challenges when implementing business strategies both for the short, medium and long terms. Being specialized in measurement and reporting of non-financial information, accounting students, are naturally opt at dealing non-financial reporting and information. However, the culture of making their professional workplaces prioritizing sustainability and environmental issues are largely driven by the many attributes and traits of top-level executives' such as individual top-executives' value, knowledge, awareness, and attitudes towards the environment (Cordano et al. 2010). Indeed, it is of no secret that accounting and business students studying in different higher institutions would take the key management and leadership role in different organization in their professional career in future. Therefore, accounting and business graduates not only should have knowledge about environmental damages, but they must have preparedness now to take responsibility about sustainability and should display positive attitude towards sustainability-led organizational growth and success through eco-friendly behaviour and actions (Thoradeniya et al. 2015). In such case, it is important to argue that their attitude, awareness and involvement regarding to their pro-environmental behaviour can be changed, improved at the time of studying at the university level because of new knowledge they acquire about sustainability and other contextual factors. They might be familiar with different case studies information about the adverse impact of entities and negligence of environment taking care.

While previous studies have enriched our understanding of environmental topics that drive people to act environmental friendly manner (Oguz et al. 2010; Mobley et al. 2010), it is nevertheless appropriate and timely to explore whether and what factors are important future accounting and business leaders would experience to develop and display their behaviour towards sustainability that would be beneficial for excelling their future professional career as well as the society at large.

The current study aims to identify different factors affecting pro-environmental behaviour of accounting and business students studying in higher educational institutions and develops a conceptual framework in relation to the environmental friendly behaviour of accounting and business students. With the lenses of four established

psychological theories, the framework developed in the current study would be beneficial for the future researchers for empirical investigation. The framework would also be valuable for the policy-makers and educationists as it would enable them towards understanding a broad ranges factors and complexities associated with glimpsing a holistic picture of pro-environmental behaviours of students'. In the sustainability literature, numerous past studies advanced our understanding on pro-environmental issues applying at the schools' level (Asmuni et al. 2012; Bradley et al. 1999). Other studies identified other issues for example, the influence of ranges of determinants that influence to develop business students' behaviour with regard to environmental friendly actions (Cordano et al. 2010), the heterogeneous beliefs of students on environmental friendly behaviour across different disciplines and majoring areas such as arts, science or others (Ewert and Baker 2001), or understanding overall anxiety and feelings of students on environmental protection and caring (Oguz et al. 2010). However, the literature is still silent towards understanding different factors and their possible relationship to a set of variables for composing pro-environmental behaviour of accounting and business students in the tertiary institutional setting. Similarly, although education and environmental knowledge are assumed to be significantly related to act pro-environmentally, it is still unclear the patterns (e.g., direct, intervening and interactions) to which the relationship could be developed between these variables, how these patterns influence pro-environmental behaviour through a cause and effect chain (Zsóka et al. 2012), and what other factors that could intervene and be conditional to such the relationship. The current study aims to fill this gap.

The rest of the chapter is organized as follows: Sect. 4.2 starts with the discussion of pro-environmental behaviour followed by discussion of four established theories for identifying factors influencing pro-environmental behaviours of students. Section 4.3 presents the theoretical model of the study. In the Sect. 4.4, the conclusions and implications of the study are discussed.

5.2 Pro-environmental Behaviour: Theory Triangulation

In the literature, wide varieties of theories have been used in the previous studies to understand and explore pro-environmental behaviour. Among others, the theory of reasoned action, theory of planned behaviour (TPB) is most popular and widely used (see Fatima et al. 2016). Other theories that have also received increasing attention in the literature include norm activation theory by Schwartz (1970), values-beliefs-norms theory originated from the thought of and promoted by Stern (1999) and the social cognitive theory advocated by Bandura (1986). As a matter of fact, there is still varying school of thoughts in the literature that resulted in divergence views in understanding how pro-environmental behaviour can be projected from and what different factors originated from these theories such as attitudes towards environmental friendly activities, knowledge about environment, social interactions and others (Bamberg and Moser 2007; Mobley et al. 2010; Fatima et al. 2016). Consequently, it would be dubious to rely on one theory to have a holistic understand-

ing of factors that could influence environmental friendly behaviour of accounting and business students. With the help of four established psychological theories, the current section, therefore typifies different types of factors towards understanding eco-friendly behaviour of individuals, particularly for the accounting and business students. Theory triangulation using more than one theory has been considered in the current study because we believe that consideration of merely one theory would result in 'in-complete' picture of and insights of pro-environmental behaviour of accounting and business students. Thus, combining four theories would enable us to have a holistic and robust understanding of factors that could impact on the pro-environmental behaviours of tertiary students in business disciplines.

5.2.1 The Theory of Planned Behaviour (TPB)

TPB is one of the most popular theory that has been widely recognized and used in the sustainability research for understanding sustainability and eco-friendly behaviour of people over the last four decades or so (Fatima et al. 2016). The theory aims to forecast that the attitudes of people drive their behaviour that they do and understanding of people's attitude is important to predict their behaviour because these two are thoroughly associated. Extended by the previous scholars (e.g., Fishbein and Ajzen's 1975; Ajzen and Fishbein's 1980 from theory of reasoned action), TPB also addressee importance of recognizing the intention of individuals in accomplishment of environmental friendly behaviour (Fatima et al. 2017). The prettiness of this theory is its openness of adding new dimensions (Ajzen 1991; Lent et al. 1994, 2000). For example, the theory was not only extended through adding the dimension such as perceived behavioural control in the past (Fishbein and Ajzen's 1975), recently, the factor 'social interactions' has also been added in the theory as key influential factor that has evidenced to have both direct and mediating relationship in the attitude and behavioural intention relationship (Fatima et al. 2016, 2017). In the sustainability literature encompassing understanding environmental friendly behaviour, the theory was frequently used to understand different types of pro-environmental behaviours across different industries in different countries (see for example, Stern et al. 1995b; Taylor and Todd 1995; Cheung et al. 1999; Trumbo and O'Keefe 2001; Sparks and Shepherd 1992; Boldero 1995).

As argued in the theory, the most influential predictor of pro-environmental behaviour is behavioural intentions. The behavioural intention of individuals is driven by numbers of factors. Specifically, the degree to which individual embraces a positive attitude towards the pro-environmental behaviour, and person's insights, the norms and agreements regarding the behaviour (commonly termed as subjective norms) are the two core attributes that assist individual to behave environmental friendly way. Similarly, other factor is also relevant in this regard. For example, the extent to which an individual perceives that behaviour at hand to be under his or her personal control, commonly known as perceived behavioural control (PBC). Given that PBC is a core element that determine how an individual will behave

(Fatima et al. 2016, 2017), it unpacks and provides an in-depth understanding of how individuals belief and their confidence will drive themselves to protect environmental damage and push them to involve in environmental friendly activities. Environmental attitude is defined as an expression of psychological propensity of people in understanding the natural environment with varying level of promise and incongruity (Milfont et al. 2010). Applying this theory in case of accounting and business students in the context of higher institutions, positive attitude of accounting students on different pro-environmental activities will induce them to participate in different pro-environmental activities. Their attitude will be formed because of various factors such as norms, and perceived behavioural control, environmental knowledge and awareness they would learn throughout their university period. Empirically, several studies have demonstrated that the theory is very useful in predicting pro-environmental behaviours (Fatima et al. 2017; Sparks and Shepherd 1992). For example, Sparks and Shepherd (1992) evidenced that individuals' intentions to buy organic foods are driven by various factors of consumers, among others, green consumerism, subjective norms, and perceived control of consumers in their behaviour are most influential. Very recently, Fatima et al. (2017) provided empirical evidence applying this model in the specific context of tourism and hotel management students in Australia.

5.2.2 Norm Activation Theory

Initially emerged more than five decades ago (Schwartz 1968a, 1973) and then some refinement in the 1970s (Schwartz 1970, 1977), Schwartz' norm activation model has also been perceived influential model towards understanding pro-environmental behaviour. The reason is that theory provides a decent basis for investigating pro-environmental behaviours (Homburg and Stolberg 2006). In this theory, three antecedents of individuals' behaviour are considered as core elements. These include individuals' awareness of consequences, acknowledgement of obligation and responsibility and their norms (Sawitri et al. 2015). The basic premise of this theory is that a consciousness and perception of possible detrimental effect of anti-environment and social activities and acknowledgement and acceptance by an individual that they have the responsibility towards protecting environment would activate their personal norms that are likely to drive them to act positively for stopping detrimental environmental actions. Essentially, the key components of Schwartz's theory involve combinations and solid nexus of core issues such as the alertness of consequences of environmental damages, perceived responsibility felt by an individual or groups' as well as the degree of an individual's norms (Sawitri et al. 2015). Fundamentally, the theory argues that individuals engage in environmental friendly behaviour only when their personal norms are stimulated. Arguably, their personal norms are stimulated when individuals know that their

help and assistance is necessary to make the change, and they are mindful on how positive consequence it would bring if they take the responsibility of helping others in the society and including natural environment (Cordano et al. 2010).

Applying this theory in the context of accounting and business students, it can be argued that accounting and business students would actively participate in activities conducive to protect natural environments being aware of the activities. In this regard, they would be stimulating themselves by knowing the fact that protection of environmental damages is a part of their own moral responsibility but at the end, they would participate such activities only when it would be guided by their personal norms. Empirically, to understand pro-environmental behaviour, this theory has been extensively used since last three decades (Schwartz 1977; Stern et al. 1995b; Oom Do Valle et al. 2005).

5.2.3 Values-Beliefs-Norms Theory

This theory argues that pro-environmental behaviour is stirred by triggering standards and practices of altruism and humanity displayed in behaviour and actions. Driven by some core factors such as personal values, perceived views that these values are at risks, and views and beliefs that the individual can act positively to combat the risk to retain those values, this theory is deeply rooted in the value system of both individuals and groups in the society (Stern 1999). It should be noted that the theory has some difference from the norm activation theory discussed earlier (Sawitri et al. 2015). Specifically, while altruistic mentality is a key take-home message of the norm activation theory, the values-beliefs-norms theory exclusively emphasizes on personal value system. Precisely, using the theme of the theory in case of pro-environmental behaviour, it can be argued that demonstrating environmental friendly behaviour originates from acceptance of personal values about protecting natural environment (Schwartz 1968a, b). Furthermore, it is also based on beliefs that issues regarding those values (e.g., natural environment in the current case) are under threat, and individuals must hold the views that to re-establish the values, necessary positive actions taken by them are required to lessen the environmental threat (Stern 1999).

Applying this theme in case of accounting and business students, it can be argued that accounting and business students would perceive that they would be required to actively participate in pro-environmental activities when they feel that certain activities within and outside university (or even their social life) would facilitate to harm natural environment. In this regard, they would be stimulated by their self-belief that they can stop environmental damages through their active positive participations and they would participate such activities when it would be guided by their own value system. In other words, protecting environment would be a matter for them if they really feel from their hearts, in fact, how is it inbuilt in their heart and then try to act accordingly.

5.2.4 *Social Cognitive Theory*

In the above-mentioned theories, functioning of triadic variables towards understanding the environmental behaviours was not explicitly recognized. In the social cognitive theory, it was explained that human behaviour would be effectively functional when there will be nexus between three different types of factors commonly termed as triadic model (Bandura 1986). In this model, three factors, for example, cognitive and other personal factors and overt behaviour affect mutually (Sawitri et al. 2015). The personal factors such as affective states and physical attributes, external environmental influences (Sawitri et al. 2015) require time lag, as such do not influence in environmental behaviour immediately and concurrently, rather emerge with different period. In other words, the reciprocal interactions among different variables do not work at once (Sawitri et al. 2015). Towards understanding the personal determinants within this theory, the idea of personal agency has also been stressed in the theory (Sawitri et al. 2015).

Personal agency has been defined as the ability of individuals not only to deliberately select, implement, but also monitor, manage and improve their activities to achieve targeted goals (Bandura 1997). In such case, it is argued that on top of showing awareness towards external influences, individuals are also paying a good heed to control their own behaviour and actions so that their goals are achieved (Bandura 1999). Given that human being can act both as ‘commodity’ and ‘commodity supplier’ of their environments (Bandura 2000), in executing agency, a self-efficacy of individuals performs an influential role in this regard. According to Bandura (1982), the goals that individuals develop, the related activities they perform to accomplish goals, the persistence they display to achieve the goals, and the thoughts and feelings they carry out when executing actions are perceived to be shaped and reshaped by their own self-efficacy attribute (Bandura 1999). Specific to accounting and business students, it can be argued that environmental and sustainability goals that students would develop, their activities and actions to implement the goals, persistency and resilience they display for establishing and promoting the environmental behaviour would be guided from students’ own confidence on their ability. Given that expectations of human being are high in terms of achieving outcomes (that is, an individual has perceived belief that he or she will be effective in the eyes of society when their targets are achieved), this induce them not only to be motivated but also direct themselves to progress for achieving their preset goals and objectives (Sawitri et al. 2015).

In the environmental psychology literature, exploring the role of personal agency has surprisingly been overlooked. Very few studies have been conducted so far in this respect in explaining environmental friendly behaviour (for details, see Tabernero and Hernandez 2010; Meinhold and Malkus 2005; Homburg and Stolberg 2006). To understand the role of personal agency, understanding an individual self-efficacy is also important. Self-efficacy is defined as the confidence in individual’s own capacity to control future action necessary to tackle certain circumstances to achieve their goal (Wood and Bandura 1989; Bandura 1997). Applying the concepts in case of

accounting and business students, it can be predicted that self-efficacy of individual students will drive them to stimulate their interest, select goals, choice action and outcome expectation. The self-efficacy of students can be arising because of learning experience and knowledge of students, which may origin from the background of students, contexts of the study, and personal background (such as genders or ethnicity) of students.

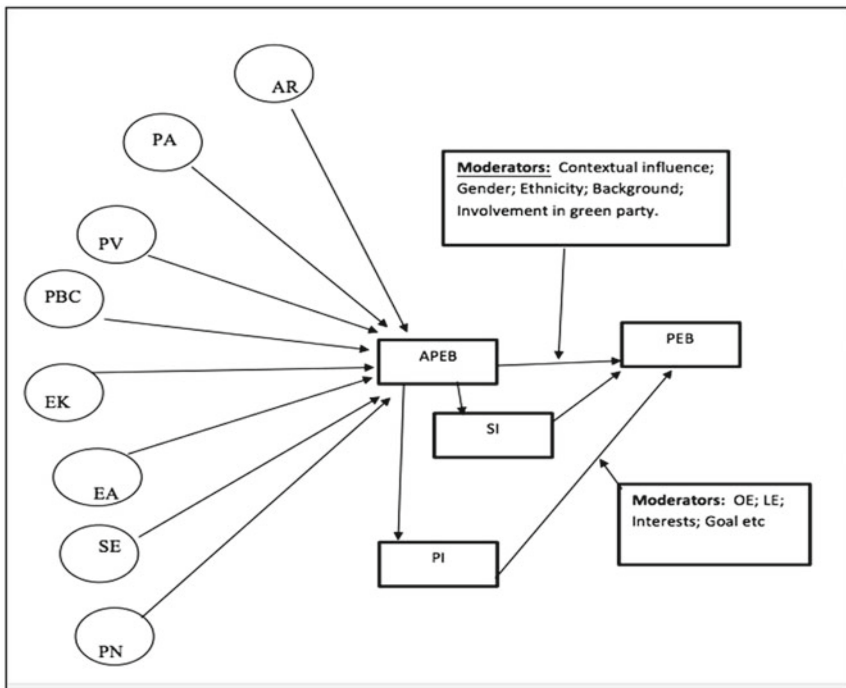
In this theory, there are other relevant factors that should be stressed, for example, perceived outcome expectations, goals and contextual factors. While the factor 'outcome expectations' could be used in the previous research in sustainability areas, to date, less been progressed in the literature to take it into account and for empirical testing. Outcome expectations are beliefs about the consequences of a course of action (Bandura 1986). Outcome expectations originate from various forms of human behaviour as result of their learning experiences in the society for example, social recognition, appreciation and acknowledgement from community people, friends, peers and others. There could be other reasons that may accelerate individuals to work hard for achieving outcomes. For example, achieving outcomes may result in yielding benefits both in financial terms through price money or awards, and non-financial benefits such as self-evaluation and self-complacence of accomplishing something (Sawitri et al. 2015; Bandura 1997).

Furthermore, the construct 'goals' has its importance in the management science, where goals are defined as plan of an individual to engage in different tasks so that outcome are achieved on time (Bandura 1986; Bandura 2000). It should be noted that goals are different from actions. While 'goals' are predetermined set of aims, 'actions' are actual tasks performed to achieve these aims (Tabernero and Hernandez 2010). In terms of contextual factors, to date, there has not been extensive research in environmental psychology literature (exception includes few studies see for example, Guagnano et al. 1995; Hunecke et al. 2001), the importance of which should not be undermined. In the context of higher institutions, if adequate facilities (such as recycle bins or signage or instruction of smoking-free zones in the university premise) are not provided, it is impractical to expect that students from any disciplines would able to demonstrate pro-environmental behaviour. Therefore, it has been argued that contextual factors shape and reshape environmental behaviour of human being and assist them either to act environmental friendly way or damage environment (Stern et al. 1995a; Bandura 1986). For example, provision of fine/or other financial penalty or rewards can hinder and motivate individuals to act positively in environmental sensitive decision (Corraliza and Berenguer 2000). Environmental friendly behaviour can also be different across different community groups, genders, education level and ages, and these factors should not be overlooked. Recently, Fatima et al. (2017) reported that pro-environmental behaviour and social interactions of hospitality and hotel management students are gender specific as it varies between male to female students. Accordingly, on top of considering various personal factors such as attitudes, norms and habits of accounting and business students, it is also important to study contextual factors such as physical infrastructure, technical facilities, resource availability, for understanding actual actions in pro-environmental behaviour. While the goals of engaging environmental friendly

activities are inclined to be accomplished when students have contextual supports, lack of these can impede them not to engage environmental caring that would result in achieving environmental goals are at jeopardy (Sawitri et al. 2015; Gifford 2014).

5.3 Theoretical Framework for the Current Study

Based on above-mentioned discussion, we propose the following theoretical framework (Fig. 5.1).



EK= Environmental Knowledge; EA= Environmental awareness; APEB= Attitude towards pro-environmental behavior; PI= Participation Intention to environmental Protection activities; PA= Personal Agency; SI= Social Interactions; PEB= Pro-environmental behavior/action; AR= Acknowledgement of Responsibility; PV= Personal Value; SE=Self-efficacy; OE= Outcome Expectations; LE= Learning Experiences; PN= Perceived norms and conventions; PBC= Perceived Behavioral Control.

Fig. 5.1 Theoretical framework for factors understanding pro-environmental behaviour of accounting and business students

5.4 Conclusion

The current study identifies different factors that are likely to influence pro-environmental behaviour of higher education's students studying in accounting and business disciplines. Furthermore, the study develops a conceptual model that assisted us to understand the pro-environmental behaviour of accounting and business students holistically. With the lenses of four established psychological theories, the framework developed in the current study will be beneficial for the future researchers for empirical investigation and testing. The framework is also significant for the policy-makers and educationist in the tertiary education sector for understanding a broad ranges factors and complexities associated with glimpsing a full picture of pro-environmental behaviour.

The study depicts that in addition to using one established theory (e.g., theory of planned behaviour), combinations of variety of theories can serve as an alternative and complimentary explanation of pro-environmental caring and associated actions of students. Overall, from all these theories, it has been argued that a variety of personal, environmental and behavioural factors would have impact on the pro-environmental behaviour of accounting and business students. To the best our knowledge, the study is the first that considers different theories and develop a theoretical framework for understanding pro-environmental behaviour of accounting and business students at tertiary institutions. Further studies are suggested to use this framework for having a holistic understanding of pro-environmental behaviour of students' and empirically test the theoretical framework in different contexts in different countries. In such case, it is highly suggested for future researchers to use both large-scale survey researches to test hypotheses and test the model and deploy case study approach of data collection through in-depth interviews, embracing mixed methods of research design. When possible, even use of longitudinal data to explore the phenomenon and test the framework across different time dimension and across different countries would also be a good candidate for future academic research.

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Part III
Social Responsibility and Sustainable Auditing

Chapter 6
Determinants of Ethics Auditing: Structural Equation Model Approach

Sezer Bozkuş Kahyaoglu, Bulent Balkan and Ozlem Balkan

Abstract It is generally accepted that behaving ethically is essential to the success of organizations. The failure to behave ethically in the eyes of key stakeholders can impair the health of organizations. This is particularly the case with organizations who are potentially vulnerable to direct consumer action and also the state agencies who provide various services for their citizens. In this paper, we analyze the involvement of internal audit in the provision of assurance in relation to the ethics implementations in organizations. Internal audit is expected to conduct an effective ethical audit as a high priority in a risk-based internal audit planning process which is required by the International Professional Practices Framework (IPPF) of the Institute of Internal Auditors (IIA). The provision of assurance concerning successful implementation of an ethics policy as a contribution to the achievement of organizational objectives is becoming increasingly critical. That's why, it is examined whether internal audit is ready for responding to this challenge globally. The Common Body of Knowledge (CBOK) data of IIA are used for analyzing the current situation about determinants of ethics auditing all over the world. We propose a structural equation model (SEM) utilizing a worldwide dataset of CBOK data with responses from internal auditors. The determinants of ethics auditing is estimated by using SEM with 20 observed variables loaded to six factors namely, Audit Policy Documents, Auditor Integrity, Audit Policy Documents, Ethics Standards, Ethics Audit, and Corporate Governance.

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[1] Melé (2012) argue that stakeholders are people affected by or who can affect the activity of the organization.

[2] Ferell, O. C., Fraedrick, J., and Ferell, L. (2011). Business Ethics: Ethical Decision Making and Cases. Mason: South-Western—Cengage Learning.

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Finally, policy recommendations are made based on empirical findings to add value to internal audit profession and stakeholders.

Keywords Internal audit · Ethics auditing · Corporate governance Structural equation model (SEM)

JEL Codes M42 · M14 · C35

6.1 Introduction

In this paper, it is aimed to assess the determinants of ethics auditing. Ethics is defined as the principles of right human behavior. The ethics auditing is supposed to provide an evaluation of an organization's overall ethical performance by comparing its core values, ethics policies, management systems, and daily operations, and, also, key stakeholders'[1] expectations.[2] From this point of view, ethics auditing is different from the traditional auditing of accounts. According to IIA, an active internal audit function is an integral part of corporate governance and plays an essential role in helping management and the board of directors (BoD) to achieve their objectives. Internal auditing is critical to a healthy ethical culture. IIA endorses internal auditors to assist in mitigating ethic risks through effective ethics, and compliance internal audit program composed of four primary elements, namely promoting ethics, assessing and incorporating ethics risk, continuous monitoring, and reporting and following-up. Internal auditing could promote ethical culture via tone at the top approach by relying on the code of ethics for the internal auditing profession and supervision business ethics all over the organization (Vallance 1995; Kaptein 1998; Mackenzie 1998; Domingo 2005; Halbouni 2015). IIA defines global competency framework for internal auditors based on "Professional Ethics" and "Internal Audit Management" which provides a firm foundation for the delivery of civil audit (Fig. 6.1). To provide a useful service, internal auditors need to operate according to high ethical standards and coordinate the resources and activities of the internal audit function.[3]

Ideally, to execute a practical ethics auditing, there is a need for professional ethical internal auditors within an effective internal audit function and also full support of senior management for ethical culture and climate in that organization (Morland 2008). Considering this fact, the paper is put in an order with suggesting the determinants of ethics audit model for evaluating ethical risks and for organizations to assist by creating awareness to prevent ethical and moral risks occurring. The structural equation model (SEM) is used, and data analysis and necessary statistical tests are made to assess the determinants of ethics audit model by using IIA's CBOK data in the below sections.

[3]Institute of Internal Auditors-IIA. (2014). The IIA Global Internal Audit Competency Framework. https://na.theiia.org/careermap/Public%20Documents/Framework.pdf.

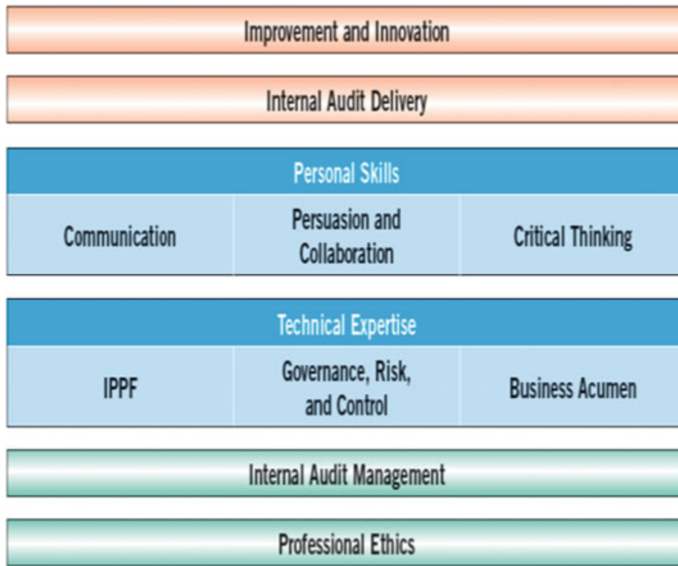

Fig. 6.1 IIA global internal audit competency framework. *Resource* IIA (2014)

6.2 The Measurement Model

The measurement model is constructed in line with the IPPF and Ethics Standards, and our hypothesis is summarized as follows: Firstly, Auditing Standards, Auditor Integrity, and Audit Policy Documents are classified as the elements of the foundation stone. Secondly, Corporate Governance is ranked as the element of the cornerstone, and thirdly, Ethics Standards are classified as the keystone for our measurement model (Fig. 6.2), i.e., determinants of Ethics Audit.

H1. *Ethics Audit*: Compliance of ethics code and applying ethics and fraud in audits has a positive impact on ethics audit.

Many organizations apparently understand the benefits of ethics auditing, and recently it has become trendy for organizations to conduct ethics audit. As the nature and scope of the internal audit activities increase, the higher the probability of detecting fraud and unethical behaviors. Notably, recent financial scandals and legal and ethical misbehaviors have encouraged companies to improve their operations, including corporate governance, ethics programs, customer relations, and environmental policies. The objective of an ethics audit is to influence the behavior of employees, that is, to promote ethical behavior and impede unethical behavior.

H2. *Auditor Integrity*: Compliance with ethics code and maintaining confidentiality and objectivity have a positive impact on auditor integrity.

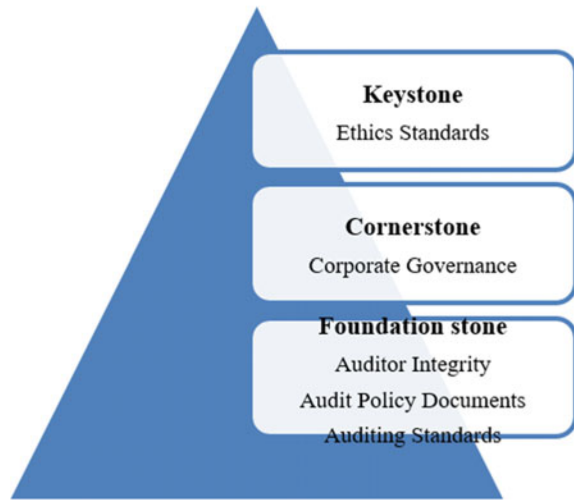

Fig. 6.2 Measurement model for the determinants of ethics audit. *Resource* The Authors, 2017

Internal auditors are expected to be a role model for ethical culture with competency on ethics. IIA provides the rating for competency level of ethics for internal auditors which is shown in Table 6.1. Internal auditors' duties, rights, and responsibilities in an organization require them to uphold the highest standards of behavior to serve as a role model for other employees (IIA 2011, 2014). Hence, to provide an effective ethics audit service, internal auditors need to operate according to high ethical standards and coordinate the resources and activities of the internal audit function. Besides, the organizational culture should promote ethical behavior which is supported by senior management since internal audit is a management-oriented discipline that addresses a variety of assurance and consulting services.

H3. *Audit Policy Documents*: Existence and quality of IA charter, IA mission, IA manual, IA strategy, and key process indicators (KPI) of IA have a positive impact on Audit Policy Documents.

To clearly identify the audit objectives, Audit Policy Documents are needed. In that case, Audit Policy Documents are fundamental for demonstrating the best practices and guideline for internal auditors written with a strategic perspective of an organization involving vision, mission, internal audit charter, manuals, and KPIs as well. It should be noted that all kinds of documents, forms, and content of policies and procedures are dependent upon the size and structure of the internal audit activity and the complexity of its work. In addition to the Audit Policy Documents, when thinking about conducting an audit on ethics or issues, internal auditors must know what they are dealing with, what does ethics mean to execute ethics audit comprehensively.

H4. *Auditing Standards*: Safeguarding of Standards usage and implementation of Standards 2600—Communicating the Acceptance of Risks and 1200—proficiency and due professional care have a positive impact on Auditing Standards.

Table 6.1 IIA rating of internal audit competency-foster the ethical climate of the organization[a]

Competency-ethics	Behavioral examples
Expert	Behave in a manner that sustains trust and reinforces the reputation of internal auditing Ensure that ethics and fraud considerations are incorporated in audit engagements
Skilled	Incorporate considerations of ethics and fraud in audit engagements
Applied knowledge	Comply with the organization's code of ethics Comply with the IIA's code of ethics Escalate possible breaches of ethics
General awareness	Comply with the organization's code of ethics Comply with the IIA's code of ethics Identify possible breaches of ethics and discuss with the manager
Limited awareness	Comply with the organization's code of ethics Comply with the IIA's code of ethics

[a]Institute of Internal Auditors-IIA. (2014). The IIA's Global Internal Audit Competency Framework—Career Map Alignment. The Institute of Internal Auditors Inc. pp. 11–12
Resource IIA (2014)

IIA promotes International Standards for the Professional Practice of Internal Auditing (Standards) in detail, and the review and development of the Standards is an ongoing process. It is a fact that internal auditing is conducted in diverse legal and cultural environments all over the world, i.e., especially for organizations that vary in purpose, size, complexity, and structure; and by persons within or outside the organization. While differences may affect the practice of internal auditing in such circumstances, conformance with the IIA's Standards is crucial in assuring the responsibilities of internal auditors and the internal audit activity.[4] All internal auditors are accountable for conforming with the Standards related to own objectivity, proficiency, and due professional care and the Standards relevant to the performance of their job responsibilities. In our case, considering the Standards usage, the implementation of Standards 2600—Communicating the Acceptance of Risks and 1200—proficiency and due professional care is found to be critical for ethics auditing.

H5. *Corporate Governance*: Existence of organization broad risk management, governance review support, follow up audit findings, governance assurance within top

[4]Institute of Internal Auditors-IIA. Standards For The Professional Practice Of Internal Auditing (Standards). (2016). pp. 1–3.

Table 6.2 Measurement model

Observed variables	Latent variables
Q140_A_2: Ethics, Fraud Applied in Audits Q140_A_1: Ethics Code Compliance	F 1-Ethics Audit
Q140_A_3: Confidentiality Maintained Q140_A_4: Objectivity Maintained Q140_A_1: Ethics Code Compliance*	F 2-Auditor Integrity
Q82_1: Audit Policy Documents_Charter* Q82_2: Audit Policy Documents_Mission Q82_3: Audit Policy Documents_Manual Q82_4: Audit Policy Documents_Strategy Q82_6: Audit Policy Documents_Key Process Indicators	F 3-Audit Policy Documents
Q137_A_12: 2600—Communicating the Acceptance of Risks Q137_A_4: 1200—Proficiency and Due Professional Care Q142: Standards Usage	F 4-Auditing Standards
Q74: Risk Management_Organization Wide Q89: Three Lines of Defense_Recognition Q97: Legal Mandate for Internal Audit* Q96: Governance Review_Board Support* Q124_3: Value_Top 5_Governance Assurance* Q67: Follow Up_Audit Findings*	F 5-Corporate Governance
Q82_5: Audit Policy Documents_Ethics Q94_1: Governance Documents_Ethics	F 6-Ethics Standards

*These observed variables are statistically insignificant, i.e., they do not have the power to explain latent variables (factors)

five value, the legal mandate for internal audit and also recognition of three lines of defense (TLOD) has a positive impact on Corporate Governance.

As Thompson and Strickland (2001) noted, the culture of an organization is comprised of its beliefs, practices, views, and traditions. The stronger the culture, the increased probability that it will affect its strategic decisions. Starting with the board composition and conduct, committees and ethical decisions, the leaders of organizations send a clear message to employees about an organization's culture and behavioral expectations. The studies of corporate governance discover that a lack of ethical climate is associated with higher incidences of fraud (White 1976; Selznick 1984; Sawyer 1988; Sutton 1993; Stern 1994; Sawyer and Dittenhofer 1996; Spraakman 1997).

According to Francis and Armstrong (2003), a risk management strategy starts with a commitment from the top of an organization for an ethical culture supported by appropriate policies, a code of conduct, and procedures and systems in place to reward ethical conduct and censure inappropriate actions.[5] There are at least two aspects of risk management: management of resources and management of stakeholders.

[5]Ronald Francis and Anona Armstrong. (2003). Ethics as a Risk Management Strategy: The Australian Experience. *Journal of Business Ethics*. Vol. 45. No. 4 (Jul 2003). pp. 375–385.

Table 6.3 Descriptive statistics of observed variables

Observed variables	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Observations
Q124_3—Value_Top 5_Governance Assurance	0.380247	0.485567	0.493372	1.243416	342.4993*	2025
Q137_A_12-2600—Communicating the Acceptance of Risks	1.430123	0.582333	0.986499	2.972794	328.5105*	2025
Q137_A_4-1200—Proficiency and Due Professional Care	1.209877	0.42975	1.774091	5.059084	1419.983*	2025
Q140_A_1—Ethics Code Compliance	4.290864	0.874451	−1.078556	3.551311	418.2529*	2025
Q140_A_2—Ethics, Fraud Applied in Audits	4.114568	0.906013	-0.829347	3.243124	237.1253*	2025
Q140_A_3—Confidentiality Maintained	4.523951	0.75151	−1.656947	5.699964	1541.675*	2025
Q140_A_4—Objectivity Maintained	4.475062	0.761925	−1.501271	5.255573	1189.929*	2025
Q74—Risk Management_Organization Wide	2.770864	0.963689	0.026763	2.059104	74.93766*	2025
Q142—Standards Usage	1.380741	0.486705	0.504071	1.289114	332.731*	2025
Q67—Follow Up_Audit Findings	2.235062	0.868905	−0.346454	1.789567	164.1321*	2025
Q82_3—Audit Policy Documents_Manual	0.76	0.427189	−1.217562	2.482456	522.9289*	2025
Q82_1—Audit Policy Documents_Charter	0.908148	0.288888	−2.826347	8.988239	5721.634*	2025
Q82_2—Audit Policy Documents_Mission	0.573827	0.494642	−0.298581	1.089151	338.1706*	2025

(continued)

Table 6.3 (continued)

Observed variables	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Observations
Q82_6—Audit Policy Documents_Key Process Indicators	0.443951	0.496971	0.22562	1.050904	337.7186*	2025
Q82_5—Audit Policy Documents_Ethics	0.768395	0.421962	−1.272443	2.619111	558.6908*	2025
Q82_4—Audit Policy Documents_Strategy	0.399506	0.489918	0.410349	1.168386	339.8924*	2025
Q97—Legal Mandate for Internal Audit	1.415309	0.492897	0.343732	1.118152	338.6779*	2025
Q96—Governance Review_Board Support	1.470123	0.599919	0.884002	2.781326	267.7773*	2025
Q94_1—Governance Documents_Ethics	0.872593	0.333511	−2.234916	5.994847	2442.53*	2025
Q89—Three Lines of Defense_Recognition	2.460741	1.6552	0.686608	2.205791	212.329*	2025

*Statistically significant at.%1 confidence interval

Table 6.4 Pattern matrix

Observed variables	Factors (latent variables)					
	F 1-Ethics Audit	F 2-Auditor Integrity	F 3-Audit policy Documents	F 4-Auditing Standards	F 5-Corporate Governance	F 6-Ethics Standards
Q140_A_2: Ethics, Fraud Applied in Audits	.875					
Q140_A_3: Confidentiality Maintained		.938				
Q140_A_4: Objectivity Maintained		.876				
Q140_A_1: Ethics Code Compliance	.366	.523				
Q82_4: Audit Policy Documents_Strategy			.645			
Q82_2: Audit Policy Documents_Mission			.570			
Q82_6: Audit Policy Documents_Key Process Indicators			.410			
Q82_3: Audit Policy Documents_Manual			.318			
Q82_1: Audit Policy Documents_Charter*						
Q137_A_12: 2600—Communicating the Acceptance of Risks				.772		
Q137_A_4: 1200—Proficiency and Due Professional Care				.578		
Q142: Standards Usage				.562		

(continued)

Table 6.4 (continued)

Observed variables	Factors (latent variables)					
	F 1-Ethics Audit	F 2-Auditor Integrity	F 3-Audit policy Documents	F 4-Auditing Standards	F 5-Corporate Governance	F 6-Ethics Standards
Q74: Risk Management_Organization Wide					.589	
Q89: Three Lines of Defense_Recognition					−.420	
Q97: Legal Mandate for Internal Audit*						
Q96: Governance Review_Board Support*						
Q124_3: Value_Top 5_Governance Assurance*						
Q82_5: Audit Policy Documents_Ethics						.591
Q94_1: Governance Documents_Ethics						.398
Q67: Follow Up_Audit Findings*						

*These variables do not have the power to explain the variance of any factors in the factorial analysis. Variables calculated below .30 are not reported and considered as statistically insignificant

Table 6.5 CFA for determinants of ethics auditing

Observed variables		Latent variables	Estimate	S.E.	C.R.	*P*
Q82_3: Audit Policy Documents_Manual	<—	F3: Audit Policy Documents	1.000			
Q82_6: Audit Policy Documents_Key Process Indicators	<—	F3: Audit Policy Documents	1.317	.100	13.183	***
Q82_2: Audit Policy Documents_Mission	<—	F3: Audit Policy Documents	1.390	.103	13.487	***
Q82_4: Audit Policy Documents_Strategy	<—	F3: Audit Policy Documents	1.370	.102	13.466	***
Q140_A_4: Objectivity Maintained	<—	F2: Auditor Integrity	1.000			
Q140_A_3: Confidentiality Maintained	<—	F2: Auditor Integrity	.991	.015	67.954	***
Q142: Standards Usage	<—	F4: Auditing Standards	1.000			
Q137_A_12: 2600—Communicating the Acceptance of Risks	<—	F4: Auditing Standards	1.487	.077	19.373	***
Q137_A_4: 1200—Proficiency and Due Professional Care	<—	F4: Auditing Standards	.811	.045	17.876	***
Q74: Risk Management_Organization Wide	<—	F5: Corporate Governance	1.000			
Q89: Three Lines of Defense_Recognition	<—	F5: Corporate Governance	1.469	.134	10.958	***
Q82_5: Audit Policy Documents_Ethics	<—	F6: Ethics Standards	1.000			
Q94_1: Governance Documents_Ethics	<—	F6: Ethics Standards	.677	.056	11.987	***
Q140_A_2: Ethics, Fraud Applied in Audits	<—	F1: Ethics Audit	1.000			
Q140_A_1: Ethics Code Compliance	<—	F1: Ethics Audit	1.079	.024	44.708	***

***Statistically significant at.%1 confidence interval

Table 6.6 CFA for determinants of ethics audit-covariances

Factors		Factors	Estimate	S.E.	C.R.	*P*
F3-Audit Policy Documents	<–>	F2-Auditor Integrity	.027	.004	6.064	***
F3-Audit Policy Documents	<–>	F4-Auditing Standards	.024	.003	9.329	***
F3-Audit Policy Documents	<–>	F5-Corporate Governance	.045	.006	7.996	***
F3-Audit Policy Documents	<–>	F6-Ethics Standards	.031	.003	10.804	***
F2-Auditor Integrity	<–>	F4-Auditing Standards	.054	.006	8.666	***
F2-Auditor Integrity	<–>	F5-Corporate Governance	.071	.014	5.079	***
F2-Auditor Integrity	<–>	F6-Ethics Standards	.044	.006	7.166	***
F4-Auditing Standards	<–>	F5-Corporate Governance	.088	.008	10.854	***
F4-Auditing Standards	<–>	F6-Ethics Standards	.026	.003	8.264	***
F5-Corporate Governance	<–>	F6-Ethics Standards	.070	.008	9.037	***
F3-Audit Policy Documents	<–>	F1-Ethics Audit	.034	.005	7.011	***
F4-Auditing Standards	<–>	F1-Ethics Audit	.085	.007	11.715	***

***Statistically significant at.%1 confidence interval

The former refers to matters as corporate management and the latter issue, decisions about stakeholder relations, are about the interests and well-being of people. Senior management can engage internal auditors to not only audit control activities, but also help to monitor an organization's risk profile and play a key role in identifying areas that improve risk management processes. Accordingly, we predict that as the scope of risk management increases, there will be higher demand for more extensive internal audit involvement.

Although the concept of ethics in the organizations varies from country to country, considering its level of development, tradition, and culture, some ethical elements are common to all. A strong ethical culture is essential for complying with laws and regulations, increases productivity and employee retention, and serves as the foundation for an enduring, successful organization. Also, ethical culture teaches employees how to "do the right thing." Thus, ethics become a required part of the corporate governance and performance and, in such circumstances, auditing ethics is also becoming important.

H6. Ethics Standards: Existence of audit policy documents-ethics and governance documents-ethics connected explicitly to ethics has a positive impact on Ethics Standards.

Table 6.7 CFA for determinants of ethics auditing-intercepts

	Estimate	S.E.	C.R.	*P*
Q82_3—Audit Policy Documents_Manual	.760	.009	80.058	***
Q82_6—Audit Policy Documents_Key Process Indicators	.444	.011	40.199	***
Q82_2—Audit Policy Documents_Mission	.574	.011	52.204	***
Q82_4—Audit Policy Documents_Strategy	.400	.011	36.695	***
Q140_A_4—Objectivity Maintained	4.475	.017	264.301	***
Q140_A_3—Confidentiality Maintained	4.524	.017	270.892	***
Q142- Standards Usage	1.381	.011	127.661	***
Q137_A_12-2600—Communicating the Acceptance of Risks	1.430	.013	110.513	***
Q137_A_4- 1200—Proficiency and Due Professional Care	1.210	.010	126.689	***
Q74—Risk Management_Organization Wide	2.771	.021	129.387	***
Q89—Three Lines of Defense_Recognition	2.461	.037	66.900	***
Q82_5—Audit Policy Documents_Ethics	.768	.009	81.945	***
Q94_1—Governance Documents_Ethics	.873	.007	117.737	***
Q140_A_2—Ethics, Fraud Applied in Audits	4.115	.020	204.363	***
Q140_A_1—Ethics Code Compliance	4.291	.019	220.812	***

***Statistically significant at.%1 confidence interval

Ethics in organizations, as one dimension of the management culture, is a formal system that regulates the behavior of all management and employees in that organization. García-Marzá (2017) initiates this framework which refers to a complete ethical infrastructure which consists of a set of values and principles that should be observed and respected, laws and by-laws regulating issues related to ethical behavior, internal acts such as codes of professional ethics, policies, guidelines, and manuals for detailing and implementing the legal provisions and also institutions and/or mechanisms responsible for promoting, controlling, and monitoring ethical behavior (Fig. 6.3).

Ardts et al. (2001) declare that the ethical environment within an organization influences employee behaviors in two ways. Firstly, through organizational

Fig. 6.3 Infrastructure of ethics standards

socialization processes, employees will learn to behave according to the level of ethical climate,[6] and the higher the ethical values, the higher the moral outcomes. Second, based on the empirical evidence of Weaver et al. (1999) indicates that management's attitude to the corporate ethical environment, exampled by moral leadership, has a positive impact on overall employee behavior.

An organization must have standards of conduct and internal controls reasonably capable of reducing the likelihood of fraudulent and unethical behavior. The foundation of these controls should be based on a code of conduct. The code should contain an overall description of the program and address in a practical manner the compliance risks that are relevant to the organization. It should identify those who are responsible for administering the program, the role of the governing authority, and provide general guidance on the business behavior expected from stakeholders. The code should also identify clear channels for reporting misconduct or violations of the code, and make clear that disciplinary action will be taken if an employee violates the code.

In addition to the code, an organization needs to have more specific governance documents such as policies and procedures to provide detailed guidance on the approach the organization wants employees to follow, or avoid, in its business relationships. These more detailed policies and procedures should address legal, ethical, and regulatory risks relevant to the organization's business. These can be policies that address areas such as conflicts of interest, agent, and vendor due diligence, internal accounting practices, and anti-corruption.

[6] Victor and Cullen (1987) are first in the literature to introduce the concept of "ethical climate" to explain and predict organizational ethical behavior.

6.3 The Data and Methodology

To successfully bridge the conceptual and operational domains of ethics auditing, it is necessary to examine the validity and reliability of the questionnaire to ensure that the survey is capable of providing accurate and meaningful answers to the research questions raised in the study.

Corresponding to the literature, three types of validity are considered in this research, namely content, construct, and convergent validity. Since individual respondents, i.e., 14,500 internal audit professionals complete the questionnaires independently within a predefined period by IIA, a time-ordered effect does not exist. Hence, we assume that each predictor variable is independent. To achieve the content validity, we use IIA CBOK survey data, and the list of relevant questions used in this study is shown in Table 6.8. The questionnaire used in the formal survey has strong content validity since it is developed based on scales from prior research of IIA CBOK survey data (2015).[7] To achieve construct validity, the measurement should demonstrate the convergent validity and discriminant validity.[8] For convergent validity, the items purporting to measure the same construct should correlate positively with one another. A test of the factor loading of each item can be used to assess convergent validity, where items are expected to have standardized loadings higher than .70, implying that the indicators share more variance with their respective latent variables than with error variance.

Structural equation modeling (SEM) is an integrated approach between factor analysis, structural model, and path analysis. In SEM, we perform these three activities simultaneously. The first component in SEM is the specification of the measurement model (Table 6.2), which is concerned with the confirmation of indicators that define each latent construct. In this step, exploratory factor analysis (EFA) is conducted to assess the underlying factor structure of the scaled items. Subsequently, confirmatory factor analysis (CFA) is performed to confirm the indicators which load onto each identified factor. Kaiser's criterion only components with eigenvalues of more than 1.0 are selected for further confirmatory factor analysis (CFA). Varimax

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[7] Although the number of questionnaires is equal to 14,500, we could not use them all, and depending on the validity checks, we eliminate them up to 2025. We consider the surveys with fully answered for the same set of questions, in other words, we did not select the questionnaires without any answer. We rely on these 2025 questionnaires to estimate determinants of ethics auditing. At the beginning of our empirical tests, we try to establish a different hypothesis, and in that case, the number of relevant questionnaires decreased up to 100 which is relatively small to make reliable estimations. For this reason, we did not want to decrease the sample size even lower, and due to empty lines with N/A indicating "not applicable," we only eliminate 14,500 questionnaires to 2025. According to MacCallum et al. (1996), if the sample size is small and the number of estimated parameters is large, the confidence interval will be broad. Given a complex model (i.e., a large number of estimated parameters), a considerable sample size would be required in order to obtain a reasonably narrow confidence interval. On the other hand, if the number of parameters is small, then the probability of obtaining a narrow confidence interval is high, even for samples of somewhat moderate size.

[8] Barbara M. Byrne. (2010). Structural Equation Modelling with AMOS. Basic Concepts, Applications, and Programming. Second Edition. Taylor & Francis Group. pp. 275–276.

Table 6.8 Indicators of measurement model—list of IIA CBOK questions

Q140_A_2: Ethics, Fraud Applied in Audits**	Incorporate ethics and fraud considerations in audit engagements
Q140_A_3: Confidentiality Maintained**	Maintain confidentiality
Q140_A_4: Objectivity Maintained**	Maintain objectivity
Q140_A_1: Ethics Code Compliance**	Comply with the IIA's Code of Ethics
Q82_4: Audit Policy Documents_Strategy*	Internal audit strategy description
Q82_2: Audit Policy Documents_Mission*	Mission statement for the internal audit department
Q82_6: Audit Policy Documents_Key Process Indicators*	Description of key process indicators (KPIs)
Q82_3: Audit Policy Documents_Manual*	Internal audit operating manual
Q82_1: Audit Policy Documents_Charter*	Internal audit charter
Q137_A_12: 2600—Communicating the Acceptance of Risks**	2600—Communicating the Acceptance of Risks
Q137_A_4: 1200—Proficiency and Due Professional Care**	1200—Proficiency and Due Professional Care
Q142: Standards Usage	Does your organization use the International Standards for the Professional Practice of Internal Auditing (Standards)? – Yes, all of the Standards – Partial yes, some of the Standards – No – I do not know
Q74: Risk Management_Organization Wide	What is your organization's level of development for its risk management processes? – No risk management processes are in place – Risk management processes are informal or just developing – Formal risk management processes and procedures are in place – The organization has a formal enterprise risk management (ERM) process with a chief risk officer or equivalent

(continued)

Table 6.8 (continued)

Q89: Three Lines of Defense_Recognition	Does your organization follow the three lines of defense model* as articulated by the IIA? – Yes, and internal audit is considered the third line of defense – Yes, but internal audit is considered the second line of defense in our organization – Yes, but the distinction between the second and third line of defense is not clear – No, my organization does not follow this model – No, this model is not applicable for my organization – I am not familiar with the three lines of defense model – Other
Q97: Legal Mandate for Internal Audit*	Is the existence of an internal audit department mandated by law for your organization? – Yes – No – I do not know
Q96: Governance Review_Board Support*	In your opinion, how much support does internal audit have from the board of directors (or equivalent) to review the organization's governance policies and procedures? – Complete support – Some support – No support – Not applicable – I do not know
Q124_3: Value_Top 5_Governance Assurance*	Assuring the organization's governance processes
Q82_5: Audit Policy Documents_Ethics*	Code of conduct/ethics
Q94_1: Governance Documents_Ethics*	Organizational ethics policy, code of ethics, or code of conduct
Q67: Follow Up_Audit Findings*	If an audit report has findings that need corrective action, who has the primary responsibility to monitor that corrective action has been taken? – The audited entity/process owner – The internal audit department – Both internal audit and the audited entity/process owner – Other – Not applicable – I do not know

*Each participant is required to rate the above-mentioned questions, using a (1) yes or (0) no
**Each participant is required to rate the above-mentioned questions, using a Likert scale with five levels, i.e., 1 strongly disagree to 5 strongly agree

orthogonal rotation is used to determine the pattern of loadings for straightforward interpretation, which assumes that the variables are not correlated and help to maximize the variance of factor loadings by making high scores higher and minimizing the low ones. Items that load higher than .3 are retained. Based on the components extracted from EFA, AMOS 24.0 is used to carry out CFA to assess the fit of the measurement model to the empirical dataset and factors are given at Table 6.4, namely in pattern matrix.

6.4 Descriptive Statistics and Parameter Estimates

Firstly, the descriptive statistics of observed variables are calculated and summarized at Table 6.3. Descriptive statistics provide an understanding of average value as well as the average deviation of a dataset by looking at the measures of central tendency and measures of dispersion. Hence, descriptive statistics are calculated to examine the shape of the observed variables, i.e., whether these observed variables are appeared to be skewed or not. As data become more symmetrical, its skewness value approaches to zero. When data are skewed, the majority of the data are located on the high or low side of the graph. If the skewness is more excellent than 1.0 (or less than −1.0), the skewness is substantial, and the distribution is considered to be far from symmetrical.[9] The other standard measure of shape is called the kurtosis. As skewness involves the third moment of the distribution, kurtosis involves the fourth moment. Kurtosis[10] indicates how the peak and tails of a distribution differ from the standard distribution. The reference standard is a normal distribution, which has a kurtosis of 3. In our case, Jarque–Bera test indicates that the observed variables are not normally distributed. Particularly such an asymmetric distribution of observed variables supports our expectations with the skewed data. Although the questionnaires are answered by a homogeneous group, i.e., internal audit professionals, their responses and reactions to the questions are diverse depending on the geography and organizational culture they come from.

In reviewing the model parameter estimates, there are three criteria are of our interest:

(a) the feasibility of the parameter estimates,
(b) the appropriateness of the standard errors, and
(c) the statistical significance of the parameter estimates.[11]

[9] If skewness is positive, the data are positively skewed or skewed right, meaning that the right tail of the distribution is longer than the left. If skewness is negative, the data are negatively skewed or skewed left, meaning that the left tail is longer.

[10] A distribution with kurtosis >3 (excess kurtosis >0) is called leptokurtic. Compared to a normal distribution, its tails are more extended and fatter, and often its central peak is higher and sharper.

[11] Barbara M. Byrne. (2010). Structural Equation Modelling with AMOS. Basic Concepts, Applications, and Programming. Second Edition. Taylor & Francis Group. pp. 67–68.

The initial step in assessing the fit of individual parameters in a model is to determine the viability of their estimated values. In particular, parameter estimates should exhibit the correct sign and size, and be consistent with the underlying theory. Any forecast falling outside the acceptable range signals a clear indication that either the model is wrong or the input matrix lacks sufficient information. The test statistic here is the critical ratio (CR), which represents the parameter estimate divided by its standard error; as such, it operates as a z-statistic in testing that the estimate is statistically different from zero. Based on a probability level of .05, then, the test statistic needs to be $>\pm 1.96$ before the hypothesis (that the estimate equals .0) can be rejected (Table 6.4).

The primary focus of the estimation process in the SEM model is to yield parameter values such that the discrepancy (i.e., residual) between the sample covariance matrix S and the population covariance matrix implied by the model $[\Sigma(\theta)]$ is minimal. This objective is achieved by minimizing a discrepancy function, $F[S, \Sigma(\theta)]$, such that its minimal value ($F_{\min}$) reflects the point in the estimation process where the discrepancy between S and $\Sigma(\theta)$ is least $[S - \Sigma(\theta) = \text{minimum}]$. Taken together, then, $F_{\min}$ serves as a measure of the extent to which S differs from $\Sigma(\theta)$.[12] The measurement model at Table 6.2 is analyzed by using factor analysis approach to check whether observed variables have the power to explain factors, i.e., related latent constructs. Empirical findings of pattern matrix depending on the factorial analysis is shown in Table 6.2.

Firstly, we eliminate several items because of their factor scores below (<.3), and also the reliability of the construct is tested to determine the number of unique factors. There are six unique factors determined, and afterward, these six factors are used to examine causal analysis. Finally, a structural equation model (SEM) positing causal relations between the constructs is tested on a dataset with $N = 2025$. All the estimates are produced by using AMOS version 24.0.

After making various intermediate model modifications, the model in Fig. 6.1 is regarded as the best fitting model. The overall model fit is tested by using fit indices, which indicated a good fit (Fig. 6.4).

In general, the chi-squared test is used to assess sample data in proportion to implied population data. However, according to Byrne (2001, 2010), there are concerns about using the chi-squared test because its sensitiveness to sample size.[13] In consequence, many alternative fit measures have been developed[14] such as the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI), the normed fit index (NFI) and the comparative fit index (CFI) values are: .982 (GFI), .972 (AGFI), .971 (NFI), and .979 (CFI). Whereas the popular cutoff level in social sciences is

[12] Barbara M. Byrne. (2010). Structural Equation Modelling with AMOS. Basic Concepts, Applications, and Programming. Second Edition. Taylor & Francis Group. p. 73.

[13] In larger samples (as in this research), the chi-squared test almost always leads to rejection of the model because the difference between sample covariance's and implied population covariance would lead to a higher chi-squared value if sample size increases.

[14] Hu and Bentler, "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives", 1999, Structural Equation Modeling 6, pp. 1–2.

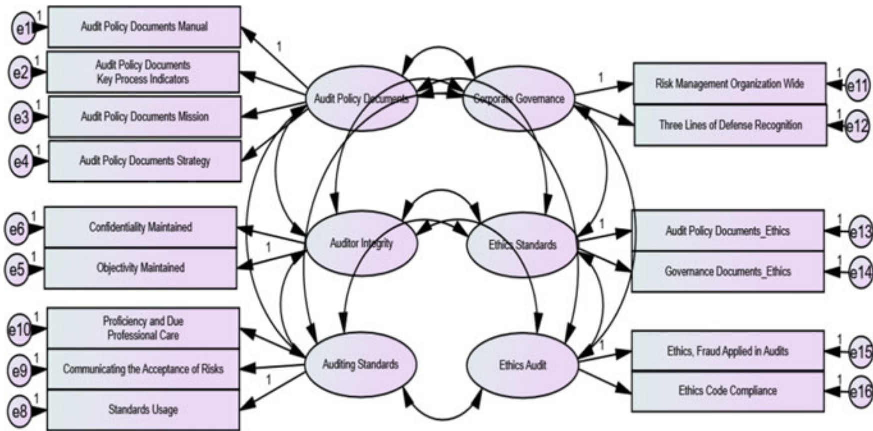

Fig. 6.4 CFA for determinants of ethics auditing

.900, this implies that the model is a good fit in the sense that the hypothesized model adequately described the sample data.

On the other hand, MacCallum and Austin (2000) have strongly recommended routine use of the RMSEA[15] For at least three reasons: (a) It would appear to be adequately sensitive to model misspecification (Hu and Bentler 1998), (b) commonly used interpretative guidelines would appear to yield appropriate conclusions regarding model quality (Hu and Bentler 1998, 1999), and (c) it is possible to build confidence intervals around RMSEA values. In our case, the root mean square error of approximation (RMSEA) with a value of .037 indicated that the model is a good fit.[16]

6.5 Discussion of the Empirical Findings

In our model, there is a definite relationship between latent variables, namely Audit Policy Documents, Auditor Integrity, Audit Standards, Ethics Standards, Ethics Audit, and Corporate Governance, and basically, we propose these latent variables as the determinants of ethics auditing at Table 6.1. The possible explanation for these empirical findings could be summarized as follows.

[15] Although this index, and the conceptual framework within which it is embedded, was first proposed by Steiger and Lind in 1980, it has only recently been recognized as one of the most informative criteria in covariance structure modeling.

[16] Barbara M. Byrne. (2010). Structural Equation Modelling with AMOS. Basic Concepts, Applications, and Programming. Second Edition. Taylor & Francis Group. pp. 73–100.

The factor loaded to Audit Policy Documents has a positive covariance[17] with the loaded factors, namely Auditor Integrity, Audit Standards, Ethics Standards, Ethics Audit, and Corporate Governance which are shown in Table 6.2. Among the Audit Policy Documents, "audit manual" has the most significant determinant of ethics auditing with a parameter of .76 at Table 6.3. Therefore, it is recommended to describe organization-specific internal audit policies with a comprehensive and sound written manual to improve not only general audit quality but also the quality of ethics auditing (Table 6.5).

An effective ethics policy is critical to any organization's governance strategy. Internal audit can add value by periodically auditing this policy. It is recommended for internal auditors to identify and discuss the critical elements of a practical ethics and compliance internal audit program in the audit manual, including what makes them useful elements. The ethics auditing, like the financial auditing, should be conducted regularly rather than in response to problems involving or questions about an organization's priorities and conduct. In this way, an organization could periodically assess the risk of improper conduct within its operations and take appropriate steps to design, implement, or modify each element of the ethics program to reduce the risk of improper or unethical behavior (Table 6.6).

The factor loaded to Auditor Integrity has a positive covariance with the loaded factors, namely Audit Standards, Ethics Standards, and Corporate Governance. The confidentiality and objectivity maintained by internal auditors have both the significant determinants of ethics auditing with parameters of 4.524 and 4.475, respectively, at Table 6.3. The IIA introduce the Global Internal Audit Competency Framework (the Framework) which is a tool that defines the competencies needed to meet the requirements of the International Professional Practices Framework (IPPF) for success within the internal audit profession. The Framework outlines the ten core competencies[18] to be demonstrated by each internal auditors. There is no surprise to see "professional ethics" as the first one on this list which is explained above at Table 6.1.

The factor loaded to Auditing Standards has a positive covariance with the loaded factors, namely Corporate Governance, Ethics Standards, and Ethics Audit which are shown in Table 6.2. In addition, the Standard 2600—Communicating the Acceptance

[17]If an increase in one variable results in an increase in the other variable, both variables are said to have a positive covariance. Decreases in one variable also cause a decrease in the other.

[18]A competency is the ability of an individual to perform a job or task correctly, being a set of defined knowledge, skills, and behaviors. The Framework provides a structured guide, enabling the identification, evaluation, and development of those competencies in individual internal auditors. The core competencies are as follows: I. Professional ethics: promotes and applies professional ethics. II. Internal audit management: develops and manages the internal audit function. III. IPPF: applies the International Professional Practices Framework (IPPF). IV. Governance, risk, and control: applies a thorough understanding of governance, risk, and control appropriate to the organization. V. Business acumen: maintains expertise in the business environment, industry practices, and specific organizational factors. VI. Communication: communicates with impact. VII. Persuasion and collaboration: persuades and motivates others through collaboration and cooperation. VIII. Critical thinking: applies process analysis, business intelligence, and problem-solving techniques. IX. Internal audit delivery: delivers internal audit engagements. X. Improvement and innovation: embraces change and drives improvement and innovation.

of Risks[19]—has the most significant determinant of ethics auditing with a parameter of 1.430 at Table 6.3. According to the Standard 2600, the CAE would discuss his or her concerns about the risk exposure with senior management within his or her regular chain of command. If the CAE, after those discussions with senior management, is still unsatisfied and concludes that the organization is vulnerable to an unacceptable risk and that senior management is not taking appropriate action to halt or correct the situation, the practice advisory (PA) suggests that both senior management and the CAE present the essential information and their differences of opinion to the members or a committee of the governing board. The PA also reminds the CAE to consider and comply with any country-specific legal or regulatory stipulations regarding ethical issues and discovery of violations of criminal, securities, food, drug, or other laws.

The factor loaded to Corporate Governance has a positive covariance with Ethics Standards which is shown in Table 6.2. The organization comprehensive risk management and three lines of defense have the most significant explanatory power and said to be the determinants of ethics auditing with the estimated parameters 2.771 and 2.461, respectively, shown in Table 6.3.

There is an increasingly common recognition to review risks in order to integrate management decision-making process and ethics auditing to determine how existing instruments, for example, for identifying and managing conflict of interest, function in daily practice (Albrecht et al. 1988; Goodwin and Teck 2001; Nagy and Cenker 2002; Goodwin 2004; Van Gansberghe 2005; Burnaby et al. 2009; Arena and Azzone 2009; Abbott et al. 2012; Alzeban and Gwilliam 2014). Given the governance failures that contributed to the financial crisis and scandals against a background of continuing economic and social uncertainty, organizations have been facing a challenge to rebuild trust in stakeholders. Restoring trust in the ability of organizations to compete in the markets, manage finances and deliver the services that customer expectations is a critical element of a return to sustainable profitability and growth (Table 6.7).

It is a fact that the ethics of an organization is significantly determined by people who work in that organization. Organizational (or institutional) ethics is primarily defined as the ethical policy of an organization, ethical thinking, and ethical behavior of board, management, and employees. This means organizational ethics have to be organized by "responsible leadership" to preserve and maintain institutional integrity, i.e., ethical culture. The organizations' credibility or legitimacy, and with that, trust, depend directly on its capacity to respond to the trust placed in it: in other words, its

[19]The IIA Standards and the code of ethics are "mandatory" guidance components of the IPPF. The IPPF also comprises practice advisories, "advisory" guidance, which is available free of charge to IIA members, and development and practice aids that provide "practical, how-to" guidance for the professional practice of internal auditing. The practice advisories consist of detailed, step-by-step guidance for adhering to the Standards. For example, Standard 2600 is about risk communication process such that when the chief audit executive (CAE) concludes that management has accepted a level of risk that may be unacceptable to the organization, the CAE must discuss the matter with senior management. If the CAE determines the matter has not been resolved, the CAE must communicate the matter to the board.

responsibility. According to García-Marzá (2005)[20], this responsibility does not stop with economic benefits, but also includes ethical, social, and environmental aspects, and thus the decisive importance of information mechanisms that are not limited to merely economic reports (Table 6.8).

In their empirical work, Trevino and Weaver (2003)[21] argue that there is a healthy relationship between perceived general fair treatment and ethics-related outcomes. Tone at the top has essential consequences for ethics governance in organizations and morally conscious behavior of employees. In addition, for ethical behavior of employees not only the observance of rules is of importance but also equally important is the level of moral consciousness among directors, managers, and employees. In this respect, the proposed effects of the management strategies discussed are to be regarded as transitional effects on the eventual desired result of corporate integrity policy, namely: ethical behavior.[22]

6.6 Concluding Remarks

In this study, the ethics auditing is found to be determined by twenty observed variables loaded to six significant factors applied to SEM model, namely Audit Policy Documents, Auditor Integrity, Ethics Standards, Ethics Audit, and Corporate Governance.

The contemporary business environment requires that we need to pay attention to ethical culture. For this reason, ethical culture building must be a vital component of every organization's compliance and risk management strategy. It is recommended to invest in building a strong ethics and compliance program and commit to ethical leadership and building an ethics-focused business culture. Within this integrated system of ethics management in an organization, ethics auditing can respond to the critical objective of ethics management, which is merely to integrate economic benefit with social and environmental benefits. Evidently, this recommendation should never lead to an economic or competitive loss, but on the contrary, could increase economic benefits and competitiveness for organizations.

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Chapter 7
Corporate Social Responsibility and Classification Shifting Between Operating and Non-operating Expenses: Evidence from Turkey

Deniz Özbay and Hümeyra Adıgüzel

Abstract This study searches for the constraining effect of corporate social responsibility (CSR) on classification shifting. The chapter includes the literature review about the definition of CSR and methods to measure CSR, and the relationship between CSR and earnings management. We chronologically categorize early empirical studies according to their variables, measurement tools, methods and findings. We interpret the findings in the literature to reach a common argument and make a comparison with our findings. In the chapter, corporate social responsibility is measured within the stakeholder approaches and through 57 variables which includes the criteria of employee rights, management structure, CSR strategies, consumers, suppliers, product quality, environment and society, and CSR projects and investments. Classification shifting between operating and non-operating expenses is measured through the expectation model developed by McVay (Account Rev 81(3):501–531, 2006). Our findings indicate a negative relationship between CSR and classification shifting.

Keywords Corporate social responsibility · Classification shifting
Constraining affect

7.1 Introduction

This study investigates the relationship between corporate social responsibility and classification shifting as a form of earnings management. We investigate whether

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socially responsible firms in a developing country behave differently from other firms when using classification shifting to classify operating expenses as non-operating.

Corporate social responsibility is one of the most prominent concepts in the literature. Although the issue of corporate social responsibility has been widely examined in the literature, there is no widely agreed definition of the concept. One of the reasons for terminological problems is the dynamic structure of the concept. The concept has changed and developed in parallel with the change of the relationship between business and society over time. Besides the terminological problems, the measurement of corporate social responsibility is one of the main problems for examining the corporate social responsibility and other disciplines relations. In this chapter, we propose a scale which is formed by different scales developed by previous researches for measuring corporate social responsibility. Corporate social responsibility has been measured within the stakeholder approaches and through 57 variables which include the criteria of employee rights, management structure, CSR strategies, consumers, suppliers, product quality, environment and society, CSR projects and investments.

Classification shifting received recent attention as an earnings management tool. McVay (2006) defines it as the deliberate misclassification of items within the income statement. Unlike the other two forms of earnings management which are accrual management and real earnings management, classification shifting does not affect the income of the current period or causes no change in the business practices. In the chapter, we analysed the corporate social responsibility and earning management relations in more than 20 empirical researches and chronologically categorise early empirical studies according to their variables, measurement tools, methods and findings. We interpret the findings in the literature to reach a common argument and make a comparison with our findings.

The remainder of the paper is organised as follows. Section 7.2 reviews the literature and develops hypotheses. Section 7.3 describes the data collection and the sample selection. Section 7.4 explains the measurement of classification shifting and reports descriptive statistics. Section 7.5 shows the empirical results, and Sect. 7.6 provides the conclusion.

7.2 Literature Review and Hypothesis Development

7.2.1 Defining Corporate Social Responsibility

Although the concept of corporate social responsibility (CSR) has been intensively studied and has had a long and diverse history in the literature, there is no widely accepted definition of this concept among scholars and practitioners. Therefore, CSR is a dynamic concept. When examining the CSR literature, it is seen that over decades the meaning of the concept has expanded depending on changes in the relationship between business and society in time. One of the first scholars to define the concept is Howard R. Bowen. In his "Social Responsibilities of the Businessman"

study, Bowen proposed CSR to be the obligation of businessmen rather than the obligation of institutions (Bowen 1953). However, over time the social responsibility of institutions had begun to be debated because of the growing power of businesses in society. According to “Shareholder Approach” which has been developed within the framework of Milton Friedman’s views and based on “invisible hand principle” of Adam Smith, the social responsibility of the companies can be achieved through the practical use of social resources (Wan and Wan 2006). Gaining maximum profits is an indication of the practical use of social resources. Companies are profit-oriented institutions, and they should not focus on social goals (Friedman 1962). In contrast to this view, McGuire (1963) emphasised that responsibility areas of businesses are far beyond the economic and legal obligations.

Similarly, Davis (1973) argued that CSR began at the end of the law. Sethi (1975) defined economic and legal responsibilities as social obligations, but according to him, CSR is concerned with social norms and values beyond these obligations. Carroll (1979), who is the most cited scholar in CSR studies, defined CSR in four dimensions as economic, legal, ethical and discretionary. However, then in 1991, Carroll improved his famous “CSR pyramid”. In the latter study, Carroll preferred to use the concept of “philanthropic responsibility” instead of “discretionary” (Carrol 1991). Furthermore, different from Milton Friedman’s views, Carroll highlighted the multidimensional structure of CSR, but conspicuously economic aims are also accepted as the basis of the pyramid in this study. Lantos divided Carroll’s CSR dimensions into altruistic CSR and strategic CSR. Economic, legal and ethical responsibilities stayed in strategic CSR, and altruistic CSR was defined as “genuine and optional personal and organisational sacrifice”(Lantos 2001). Lantos (2001) also emphasised that altruistic CSR is unethical and should not be practised by public firms. It is only appropriate for private firms because it is not one of the main activities of the business. McWilliams and Siegel (2001), who argued that social responsibility boundaries could change according to the size of companies, defined CSR as the sum of company interests, legal obligations and social benefits. In the same study, they emphasised that being fair, legal or profitable are not the same as CSR, but that CSR expresses extra efforts or contributions made for society (McWilliams and Siegel 2001). On the other hand, the “stakeholder approach” also has an essential place in the development of the CSR concept.

While the concept of stakeholder takes place in various studies, Freeman’s definition is widely accepted. According to Freeman (1984), “the stakeholder is any person or group that will influence or be affected by the achievement of the company’s goals”. In other words, stakeholders include anyone that affects them, or that is affected by the organisation’s activities (Gray 2001). With the widespread acceptance of the stakeholder approach, responsibility areas of the business have also begun to be assessed among stakeholders. According to Hopkins (2003), CSR is defined as “treating the stakeholders in the firm ethically or in a responsible manner”.

Today, CSR definitions of some important international organisations and practitioners are widely accepted, and these definitions are also based on the stakeholder approach. According to United Nations Industrial Development Organization’s definition, CSR “is a management concept whereby companies integrate social

and environmental concerns in their business operations and interactions with their stakeholders". The Commission of the European Communities explains CSR in two dimensions, internal and external. While employees and shareholders are involved within the internal dimension, business partners and suppliers, customers, public authorities and NGOs representing local communities as well as the environment are involved in the external dimension. Similarly, the International Business Leaders Forum (IBLF) defines CSR as "open and transparent business practices that are based on ethical values and respect for employees, communities and the environment. It is designed to deliver sustainable value to society at large, as well as to shareholders".

In this study, CSR is also considered within the framework of the stakeholder approach and is defined as the fair, transparent and ethical behaviour of business towards its all stakeholders.

7.2.2 Measuring Corporate Social Responsibility

In addition to discussions regarding the social responsibility areas of businesses, the measurement of CSR is also a matter of debate in the literature. Carroll (2000) notes that corporate social performance (CSP) can be measured and should not be separated from the firm's performance (Carroll 2000). He emphasises that the main problem is to develop valid and reliable measures. By emphasising the difficulty in measuring social performance, Waddock and Graves (1997) express the need for a new method that includes different research methods, reputation indices, analysis documents, as well as behavioural and perceptual measurements and case studies. Wartick and Cochran (1985) and Wood (1991) describe "performance" as related to organisational structures, processes, motivations or outcomes. According to this approach, the measurement of CSP should (1) be sensitive to the various CSR factors, (2) be independent of the organisation's characteristics, (3) be based on outcome measures and (4) reflect the values of stakeholders (Ruf et al. 1998).

While there are so many different approaches to measuring CSR in both academic writing and practice, the social performance measurement methods could be summarised into four categories:

- reputation indices and databases,
- social performance scales,
- content analysis and
- social performance indices.

At the end of the 1960s, the first reputation index emerged as Council of Economic Priorities (CEP). CEP is a one-dimensional index to measure the pollution performance of companies, and it has been used in many academic studies (Bragdan and Marlin 1972; Bowman and Haire 1975; Fogler and Nutt 1975) to measure social responsibility. Nonetheless, the index consists of only one dimension, so it has an important constraint to measure the multidimensional structure of CSR (Maignan and Ferrell 2000).

A second reputation index was generated by Milton Moskowitz, who categorised firms as "outstanding", "honourable mention" or "worst" according to their awareness to social issues (Moskowitz 1972, 1975). Moskowitz's model has also been used by some researchers like Bowman and Haire (1975), Sturdivant and Ginter (1977) and Cochran and Wood (1984). This method, however, has been criticised because the validity of this methodology depends on the sample selection process and the qualifications of those making the assessments (Abbott and Monsen 1979). In addition to this, the ratings of individuals may not necessarily be comparable (Ruf et al. 1998).

Currently, one of the most popular measures of reputation is Fortune's Most Admired Company Surveys. This index ranks corporations from a managerial point of view and according to the following eight qualitative attributes: (1) quality of management, (2) quality of products or services, (3) value as a long-term investment, (4) innovativeness, (5) soundness of financial position, (6) ability to attract, develop and keep talented people, (7) responsibility to the community and environment and (8) wise use of corporate assets (Brown and Perry 1994). Although widely used, the validity of the Fortune survey is still criticised due to the survey being heavily based on financial performance criteria (Fombrun and Shanley 1990; Brown and Perry 1994; Fryxell and Wang 1994), and also evaluation concerns by industry experts (Flanagan et al. 2011). Besides the Fortune ratings, various magazine surveys are also used for measuring reputation around the World.

Another critical measure is the KLD database. Kinder, Lydenberg and Domini (KLD) is a rating agency that scales companies traded on the American stock exchange and focuses solely on CSR measurement. "KLD 400 Social Index" was created in 1990 by Kinder, Lydenberg and Domini. The index was named FTSE KLD 400 Social Index in 2009 and is now listed in the MSCI (Morgan Stanley Capital International) Index Series. The measurement headings of the KLD include community relations, employee relations, environment, product, treatment of women and minorities, military contracts, nuclear power and South Africa. The main difference between the Fortune and KLD database is that the KLD database is created with the contributions of "external experts" while the Fortune database is built up with the contributions of "internal experts" of a certain number of industries. Therefore, KLD values institutions based on more specific criteria. While Fortune is based mainly on economic data, the KLD is based on both economic and social data.

The second method of measuring CSR is social performance scales. Social performance scales are measurement models created at individual or organisational levels by combining different criteria for the measurement of CSR. One of the first examples was developed by Aupperle et al. (1985). This scale was based on the four-dimensional model of Carroll (1979), and it is important to consider the measurement of CSR by multiple criteria. Another notable example of social performance scales was developed by Ruf et al. (1998). They developed a scale which included KLD's eight performance criteria and by using an analytic hierarchy process. Quazi and O'Brien (2000) have also developed a two-dimensional social performance scale. However, this scale is suitable for revealing the perceptions of different managers, but not for measuring the organisational involvement with socially responsible activities

(Turker 2009). Another social performance scale belongs to Maignan and Ferrell (2000). However, unlike the others, the "Corporate citizenship scale" of Maignan and Ferrell (2000) is prepared at the organisational level. They used Carroll's (1979) responsibility dimensions (economic, legal, ethical and discretionary) within the scope of stakeholders. Nonetheless, they considered only three stakeholders: customers, employees and the public (Turker 2009).

The third method for measuring the CSR performance is to use content analysis. Abbott and Monsen (1979) developed a corporate social involvement disclosure scale based on a content analysis of the Fortune 500 companies. They analysed the response of the Fortune 500 to criticism and governmental pressure, the dimensions of such corporate response, and the relationship between social involvement and corporate profitability. Content analysis method has been used by many other researchers like Anderson and Frankle (1980), Freedman and Jaggi (1982), Bowman and Haire (1975), and Gray et al. (1995). According to Abbott and Monsen (1979), the content analysis method of measuring corporate social involvement has significant advantages as a technique for measuring corporate social responsibility. On the other hand, the major limitation of this measure is that given information about the corporate in annual reports can be different of the actual actions of business (McGuire et al. 1988).

The fourth social performance measurement method is social indices. Social performance indices, which are known as social responsibility or sustainability indices, aim to demonstrate the company's social, environmental and managerial performance and enable investors to invest in socially responsible companies. The most famous examples are the Dow Jones Sustainability Index and the FTSE4Good Index. Dow Jones Sustainability Index (DJSI) was launched in 1999. The Index aims to measure the sustainability performance of companies. DJSI collects sustainability indicators under three headings: economic, environmental and social. Another global accepted index is the FTSE4Good Index. Financial Times Stock Exchange (FTSE) is an organisation that established in 1995 with the cooperation of "Financial Times" Newspaper and London Stock Exchange. The FTSE4Good index is one of the socially responsible investment indices, and FTSE launched it in 2001. FTSE4Good has many commercial indices. The purpose of the index series is to measure performance and facilitate investments in companies with social responsibility. The FTSE4Good Index first lists companies according to five main criteria. These criteria are environmental sustainability, human rights, supply chain and labour standards, anti-corruption and climate change.

Besides FTSE4Good and Dow Jones, social indices have appeared in many countries in recent years. Sustainability indices have been implemented in many developed countries such as Germany (2007), Spain (2008), Austria (2008), Denmark (2008), Sweden (2008) and Norway (2008). South Africa (2004) and Brazil (2005), which have the sustainability index much earlier than developed countries, have been a guide for developed countries. South Africa Sustainability Index (JSE SRI Index) was launched in 2004. It is expected that the companies included in the index should adopt the triple bottom line principle and good corporate governance practices. The

main headings of the index criteria are defined as the environment, society and management.

7.2.3 *Classification Shifting*

Classification shifting is one form of earnings management (EM). It is defined by McVay (2006) as the deliberate misclassification of income statement items to affect the decisions of financial statement users. The misclassification can be made between core expenses (operating expenses) and unique items (write-downs or writes of receivables, inventories, equipment or intangibles or gain or sale from the sale of equipment and investments) as measured by McVay (2006) and Fan et al. (2010). It can also be made through misclassification of core expenses as discontinued operations (Barua et al. 2010), or operating expenses as non-operating (Noh et al. 2014). Managers may also increase operating profit by classifying non-operating revenues as operating.

Most of the studies about classification shifting in the literature related with measurement of classification shifting. There are not a sufficient number of studies which investigate the motives of classification shifting or constraints to classification shifting. There are some studies which investigate the substitution effect of other earnings management methods with classification shifting. Abernathy et al. (2014) search whether managers use classification shifting more when there are restrictions to use accrual and real earnings management methods and find evidence that classification shifting is a substitute form of EM for both real and accrual earnings management. There is one study conducted by Athanasakou et al. (2011) which investigates the motive behind classification shifting and finds that UK firms use classification shifting to achieve analyst expectations. To our knowledge, there is no study in the literature which investigates the constraining effect of corporate social responsibility on classification shifting.

7.2.4 *Hypothesis Development; CSR and Classification Shifting*

There are many studies in the literature which examine the corporate social responsibility. One of the most studied subjects between them is the relationship between CSR and financial performance, and it has received considerable attention in the literature (Bragdon and Marlin 1972; Bowman and Haire 1975; Sturdivant and Ginter 1977; Cohran and Wood 1984; McGuire et al. 1988; Graves and Waddock 1994; Griffin and Mahon 1997; Hillman and Keim 2001; Lo and Sheu 2007; Andersen and Dejoy 2011; Kim and Statman 2012). Previous studies provide mixed results about the relationship between CSR and financial performance. Some of them show

a positive relationship between CSR and financial performance (Bragdon and Marlin 1972; Heinze 1976; Anderson and Frankle 1980; Cochran and Wood 1984; Graves and Waddock 1994; Griffin and Mahon 1997; Graves and Waddock 2000; Lo and Sheu 2007) while some of them cannot provide a significant relationship between them (Alexander and Buchholz 1978; Hamilton et al. 1993; McWilliams and Siegel 2000). Another group of studies show mixed results (McGuire et al. 1988; Pava and Krausz 1996; Barnetti and Salomon 2006).

In the literature, CSR has also been recognised as one of the strategic parts of corporate reputation (Fombrun and Shanley 1990; Brown and Dacin 1997; Chun 2005; Fombrun 2005; Walker 2010; Bear et al. 2010). It is accepted as one of the strategic aims for corporations. Some studies provide evidence about the constraining effect of CSR on the firms' unethical behaviours like earnings manipulation. The studies examined the relationship between CSR and EM and also provide mixed results. A considerable amount of the studies show a significant negative relationship between CSR and EM. Some of these studies and their results are summarised in Table 7.1.

None of the previous studies related to the constraining effect of CSR on EM uses classification shifting as a measure of EM. Most of them use accrual management and real earnings management as the dependent variable. A common finding of these studies is that there is constraining effect of CSR on EM.

Based on the prior findings, we expect that socially responsible firms are less liable to make EM. CSR is a signal of future improvement for the firms and increases the reputation of the firms. Managers of the socially responsible firms will avoid from unethical behaviours to preserve their reputations. Therefore, we expect that socially responsible firms act reluctantly to manage earnings also through classification shifting. This expectation can be expressed as the following hypothesis.

$\boldsymbol{H_1}$: Socially responsible firms are less liable to make classification shifting between operating and non-operating expenses.

7.3 Data and Sample Selection

Financial data of the firms listed in Istanbul Stock Exchange obtained for the years 2007–2013. From the initial sample sales of less than 1 million are deleted to avoid outliers. Industries are classified according to Global Industry Classification Standards, and firms which belong to industries do not have more than eight firms are deleted. The full sample which is used in the expectation model has 920 firm-year observations. Then the content analysis is made to the financial reports of firms to determine corporate social responsibility variables. We obtained CSR data for 66 firms. The final sample has 447 firm-year observations.

Table 7.1 Studies and their findings

Authors	Year	Research question	CSR proxy	EM proxy	Findings
Cho and Chun	2016	Whether a firm's CSR activities are associated with real activities earnings management (RAEM), and whether corporate governance moderates this relationship	KEJI (Korea Economic Justice Institute) index	RAEM	A negative relationship between CSR activities and RAEM. Good corporate governance strengthens the negative relationship between CSR and RAEM
Gras-Gil et al.	2016	Whether the extent of CSR is negatively associated with the absolute value of discretionary accruals	MERCO index (Spanish Monitor of Corporate Reputation)	Discretionary accruals	A significant negative relationship between CSR practices and absolute discretionary accruals
Martínez-Ferreroa et al.	2016	Whether the EM practices decrease corporate reputation or increase the cost of capital Can CSR practices reduce the negative impact of EM on capital cost?	EIRIS database for CSR, and Fortune index for reputation	Discretionary accruals	CSR can be used to shield the negative effect of discretionary accounting practices on the cost of capital, and it can be used to shield negative perception about the company
Suteja et al.	2016	Moderating effect of EM on the relationship between CSR disclosures and profitability	SR index calculated from the CSR disclosure provided in a company's annual report	Discretionary accruals	CSR disclosure is performed by companies merely as a defence strategy to cover EM practices
Wang et al.	2016	The impact of mandatory CSR reporting on absolute discretionary accruals	Mandatory CSR disclosure firm in China	Discretionary accruals and Earnings smoothing	Mandatory CSR disclosure firms' absolute discretionary accruals decrease substantially relative to nondisclosure firms
Bozzolan et al.	2015	Whether CSR-oriented firms are less likely to engage in REM than in AEM	EIRIS database	Real earnings management (REM) and accrual-based earnings management (AEM)	Firms with high levels of CSR orientation engage less in EM. Good CSR firms engage less in REM (which is value destroying) than in AEM, and this partially explains why they exhibit higher performance

(continued)

Table 7.1 (continued)

Authors	Year	Research question	CSR proxy	EM proxy	Findings
Gao and Zhang	2015	Whether earnings smoothing is more value relevant in CSR firms	CSR Score (KLD database)	Earnings Smoothing	Income-smoothing is more value relevant for firms with higher CSR
Ko et al.	2015	The relationship between CSR and accrual management	Being included in socially responsible investment funds (SRI)	Discretionary accruals (Modified Jones' model)	The negative relationship between CSR proxy and level of discretionary accruals
Martínez-Ferrero et al.	2015	The relationship between CSR and EM. Whether this relationship is affected by the institutional approach and investor protection policy	EIRIS database	Discretionary accruals	Both the effect of EM on CSR and the effect of CSR on EM were estimated negative and statistically significant. A higher level of EM in countries that encourage social practices is associated with lower levels of CSR. However, there have not been any significant results in countries that encourage investor protection policy
Muttakin et al.	2015	The relationship between CSR disclosures and earnings quality proxied by earnings accruals	CSR disclosures	Discretionary accruals (Modified Jones' model)	The positive relationship between CSR disclosures and income-increasing discretionary accruals
Grougiou et al.	2014	The relationship between CSR and EM	KLD database	Loan loss allowance	Managers who manage earnings in the banking sector tend to participate in more CSR activities, while CSR has not got any significant effect on EM
				Realised gain or loss on available for sale securities	
Kiattikulwattana	2014	The relationship between voluntary disclosure of a statement of management's responsibility for the financial reports (MRF) and EM	Disclosure of a statement of MRF	Discretionary accruals (Modified Jones' model)	No significant relationship between voluntary disclosure and earnings quality
				Real earnings management	

(continued)

Table 7.1 (continued)

Authors	Year	Research question	CSR proxy	EM proxy	Findings
Tandry et al.	2014	Effect of EM on the relationship between CSR disclosures and firm value	CSR disclosures	Discretionary accruals (Modified Jones' model)	EM tends to have a negative influence on the relationship between CSR disclosures and the value of the firm
Choi et al.	2013	Is the relationship between financial transparency and CSR activities affected by the business group affiliation and ownership structure of firms	KEJI index	Discretionary accruals (Modified Jones' model)	CSR ratings are negatively correlated with the level of EM. However, the relationship is weaker for the firms has concentrated ownership
Scholtens and Kang	2013	How EM is associated with CSR	CSR score according to Asia Sustainability Research	Earnings smoothing and earnings aggressiveness	Asian firms with relatively good CSR are engaged significantly less with earnings EM
Kim et al.	2012	Whether socially responsible firms behave more ethical and transparent from other firms in their financial reporting	KLD database	Discretionary accruals, RAEM, and Accounting and Auditing Enforcement Releases (AAERs)	A negative relationship between CSR and discretionary accruals, and also CSR and RAEM
					Therefore, CSR firms are less likely than non-CSR firms to be subject to AAERs against their executives
Heltzer	2011	The relationships between EM and subsamples of corporate environmental responsibility	KLD database	Discretionary accruals (Modified Jones' model)	Firms which respect the environment do not engage in more or less EM, relative to environmentally neutral firms. However, firms which disrespect the environment tend to engage in higher levels of EM, relative to other sample firms
Hong and Andersen	2011	The relationship between CSR and EM	KLD database	Accruals quality	A negative impact of CSR practices on EM
				RAEM	

(continued)

Table 7.1 (continued)

Authors	Year	Research question	CSR proxy	EM proxy	Findings
Yip et al.	2011	Whether CSR disclosure is related to EM and if the relationship is mitigated by political cost considerations or by the firm's ethical predisposition	Disclosing CSR data on the websites, annual reports, or in a separate report	Discretionary accruals (Jones' model)	A significant relationship between CSR reporting and EM and the direction of relationship changes according to the industry of the firm
Gargouri et al.	2010	The relationship between corporate social performance (CSP) and EM	Canadian social investment database	Discretionary accruals (Modified Jones' model)	Level of CSP is positively associated with EM
Sun et al.	2010	The relationship between corporate environmental disclosure and EM	Reports of UK's environment agency trucost	Discretionary accruals	No significant relation
Chih et al.	2008	The relationship between earnings management and corporate social responsibility (CSR)	FTSE all-world developed index	Earnings smoothing	CSR firms conduct fewer earnings smoothing, but more earnings aggressiveness. Companies in the non-CSR group have higher incentives to avoid decreases in earnings
				Earnings aggressiveness	
				Earnings losses and decreases avoidance	
Prior et al.	2008	The relationship between earnings EM and CSR	CSR score obtained from SiRi Pro data	Discretionary accruals	The positive impact of earnings management practices on CSR

7.4 Research Methodology

In the study, classification shifting between operating and non-operating expenses is measured by the expectation model developed by McVay (2006). The model applied to each year and industry which has at least eight firms. In the model operating profit estimated as a linear function of operating profit of the previous year, asset turnover ratio, accruals of the previous year, change in sales and neglected change in sales as follows:

$$\mathrm{OP}_t = \beta_0 + \beta_1\ \mathrm{OP}_{t-1} + \beta_2\ \mathrm{ATO_t} + \beta_3\ \mathrm{Accruals}_{t-1} + \beta_4\ \Delta\mathrm{Sales}_t + \beta_5\ \mathrm{Neg}\Delta\mathrm{Sales}_t \tag{7.1}$$

where

OP	Operating Profit scaled by sales [(Sales-COGS- Selling, General, and Administrative Expenses)/Sales],
ATO	asset turnover ratio,
Accruals	the difference between net income before extraordinary items and cash flow from operations. The difference scaled by sales,
ΔSales	is the change in sales and
NegΔSales	is the per cent change in sales if ΔSales is less than zero, otherwise 0.

In the model developed by McVay (2006), the difference between the expected and actual operating profit is determined as unexpected operating profit. In the original model, McVay (2006) also uses the current period's accruals as an explanatory variable. Following Fan et al. (2010) and Adıgüzel (2017), we removed contemporaneous accruals from the model because of the mechanical relationship between unexpected operating profit and accrual-based non-operating expenses. Instead, in the multiple regression model, we used income-decreasing discretionary accruals as a control variable to control the optional part of accrual-based operating and non-operating expenses.

To test the likelihood of classification shifting in socially responsible firms (Hypothesis 1), the following equation is estimated:

$$\begin{aligned} UE_OP_t = \beta_0 &+ \beta_1\mathrm{Non\text{-}Op\text{-}Loss_t} + \beta_2\mathrm{CSR_Score}_t \\ &+ \beta_3\mathrm{Non\text{-}Op\text{-}Loss}_t * \mathrm{CSR_Score} + \beta_4\mathrm{Abs\text{-}IncDec\text{-}Acc}_t \\ &+ \beta_5\mathrm{Log_Assets}_t + \beta_6\mathrm{Leverage}_t \end{aligned} \tag{7.2}$$

UE_OP, the dependent variable of the model calculated as an unexpected change in the operating profit scaled by sales where unexpected operating profit is the difference between actual and expected operating profit. Non-Op-Loss variable is defined as the non-operating loss scaled by sales, and it is multiplied with −1. So the higher positive values of non-operating loss indicate more non-operating expenses (less non-operating revenues) in the period. If the firm has non-operating income, it is set to zero. $\mathrm{CSR_Score}_t$ is determined through 57 variables within the framework of

Table 7.2 Descriptive statistics of the sample

Variable	Mean	Median	Std. Dev.	Min	Max
UE_OP	0.0018	0.0019	0.1309	−1.4113	1.0878
Non-Op-Loss	0.0820	0.1556	0.4534	0.0000	7.1020
CSR_Score	43.624	42.028	14.73	11.59	85.50
Abs-IncDec-Acc	0.2193	0.0000	2.3645	0.000	40.883
Log_Assets	5.938	5.8625	0.5156	4.0326	7.1668
Leverage	0.5859	0.4864	0.8923	0.0080	17.567

Variables
UE_OP Unexpected Operating profit scaled by sales
Non-Op-Loss Non-operating loss as a percentage of sales multiplied by −1. Non-operating income set to zero
CSR_Score Score of "corporate social responsibility", measured as a percentage share of company score in total CSR score
Log_Assets Log of total lag assets
Leverage Total liabilities/Lag total assets
Abs-IncDec-Acc Absolute value of income-decreasing discretionary accruals, set to zero for income-increasing accruals

stakeholders. A scale which considers eight stakeholders (employee rights, management structure, consumers, suppliers, product quality, environment, CSR strategies and society (CSR projects and investments)) is generated. Each criterion was scored 0–2 points, and the data were collected by content analysis from annual reports, non-financial reports, corporate governance reports and firms' press releases. To measure the effect of corporate social responsibility on the association between unexpected operating profit and non-operating loss, an interaction variable is used as Non-Op-$Loss_t$ * CSR_Score. Abs-IncDec-Acc variable is the absolute value of income-decreasing discretionary accruals scaled by assets. Income-decreasing discretionary accruals are used as a control variable to control the optional part of accrual-based operating and non-operating expenses. Log_Assets is the natural log of the total lag assets and used to control for the variations in the firms' sizes. Leverage is the total liabilities divided by lag total assets.

Table 7.2 shows descriptive statistics of the variables used in the multiple regression analysis. Mean and median values of UE_OP variable are very close to zero while minimum value and maximum values are −1.4113 and 1.0878, respectively. Non-Op-Loss has a mean value of 0.082 and median value of 0.155. A minimum value of Non-Op-Loss is zero because non-operating income values are set to zero in the model. CSR_Score changes between 11.59 and 85.50 and has a mean value of 43.62 and median value of 42.03. The minimum value of Abs-IncDec-Acc is zero because income-increasing accruals are set to zero in the model. The median value of zero for Abs-IncDec-Acc variable implies that more than half of the firm-years have income-increasing accruals.

Table 7.3 Pearson Correlations

	UE_OP	Non-Op-Loss	CSR_Score	Leverage	Log_Assets	Abs-IncDec-Acc
UE_OP	1.000					
Non-Op-Loss	*0.1029 (0.0296)*	1.000				
CSR_Score	0.0542 (0.2526)	*−0.2315 (0.0000)*	1.000			
Leverage	−0.0066 (0.8889)	−0.0299 (0.5278)	−0.0454 (0.3382)	1.000		
Log_Assets	*0.1260 (0.0077)*	*−0.1355 (0.0041)*	*0.4284 (0.0000)*	*−0.1100 (0.0200)*	1.000	
Abs-IncDec-Acc	*−0.1984 (0.0000)*	*0.3143 (0.0000)*	−0.0805 (0.0890)	0.0174 (0.7141)	*−0.1783 (0.0002)*	1.000

Variables
UE_OP Unexpected Operating profit scaled by sales. Unexpected operating profit is the difference between actual and expected operating profit. Expected operating profit is calculated using the coefficients from the following model
$OP_t = \beta_0 + \beta_1 \, OP_{t-1} + \beta_2 \, ATO_t + \beta_3 \, Accruals_{t-1} + \beta_4 \, \Delta Sales_t + \beta_5 \, Neg\Delta Sales_t$
Non-Op-Loss Non-operating loss divided by sales and multiplied by −1. Non-operating profit set to zero
CSR_Score Score of "corporate social responsibility", measured as a percentage share of company score in total CSR score
Abs-IncDec-Acc Absolute income is decreasing discretionary accruals, for the income-increasing accruals the value is set to 0
Log_Assets Log of total assets
Leverage Total liabilities/Lag total assets

7.5 Results

Table 7.3 provides Pearson correlations among variables of the model. The bold numbers indicate statistical significance at 0.05 and 0.01. There is a positive and significant correlation (0.1029) between UE_OP and Non-Op-Loss which shows classification shifting. The negative and significant correlation between CSR_Score and Non-Op-Loss indicates that socially responsible firms have lower non-operating expenses. Log_Assets has significant correlations with all of the variables. From these correlations, we can state that more prominent firms have higher unexpected operating profit and are more socially responsible. More prominent firms have more non-operating income rather than non-operating loss, and their debt ratios are lower. They have less income-decreasing discretionary accruals. The negative and significant coefficient between Abs-IncDec-Acc and UE_OP (−0.1984) suggests that the firms who manage accruals to have a lower income have lower unexpected operating profit.

Table 7.4 reports the estimation results of the model which examines the level of classification shifting in socially responsible firms. The positive and significant

Table 7.4 Multiple regression results

Model 2		
Variable	Predicted sign	Coefficient (z-statistics)
Intercept		−0.1580 (−2.18)**
Non-Op-Loss	+	*0.0736* (1.70)*
CSR_Score_t		0.0004 (0.86)
Non-Op-Loss $_t$* CSR_Score		−0.0011 (−0.38)
Abs-IncDec-Acc		*−0.0131* (−4.80)***
Log_Assets		0.0236 (1.81)*
Leverage		0.0022 (0.33)
Adjusted R^2	36%	
Chi^2	39.88	
Number of observations	447	
Number of firms	66	
Period	2007–2013	

*,**,*** indicates statistical significance at 0.1, 0.05, 0.01%

Variables

UE_OP Unexpected Operating profit scaled by sales where unexpected operating profit is the difference between actual and expected operating profit. Expected value is calculated using the coefficients from model 1

$$OP_t = \beta_0 + \beta_1 OP_{t-1} + \beta_2 ATO_t + \beta_3 Accruals_{t-1} + \beta_4 \Delta Sales_t + \beta_5 Neg\Delta Sales_t \quad (7.3)$$

Non-Op-Loss Non-operating loss as a percentage of sales multiplied by −1. Non-operating income set to zero

CSR_Score Score of "corporate social responsibility", measured as the percentage share of company score in total CSR score

Abs-IncDec-Acc Absolute value of income-decreasing discretionary accruals (for the income-increasing accruals the value is set to 0) calculated using the coefficients from the model below. Model applied for each year and for each industry group as

$$Ta_t/Asset_{t-1} = \beta_0 + \alpha\ [1/Asset_{t-1}] + \beta_1\ [(\Delta Sales_t - \Delta AccRec_t)/Asset_{t-1}] + \beta_2\ [PPE_t/Asset_{t-1}] + \beta_3 - ROA_{t-1} + \varepsilon_t$$

Ta total accruals

ΔSales revenues in year $_t$ less revenues in year $_{t-1}$

ΔAccRec net receivables in year $_t$ less net receivables in year $_{t-1}$

PPE gross property, plant, and equipment in year $_t$

ROA return on asset in year $_t$

Asset total assets

Log_Assets Log of total assets

Leverage Total liabilities/Lag total assets

coefficient of Non-Op-Loss (0.0736) indicates classification shifting between operating and non-operating expenses in the firms which are not socially responsible. The interaction variable Non-Op-Loss$_t$ * CSR_Score has a negative but not significant coefficient of −0.0011. Although it is not significant the direction of coefficient states that classification shifting is lower in socially responsible firms compared with not socially responsible firms. The significant and negative coefficient of Abs-IncDec-Acc (−0.0131) states that the firms who manage accruals to have a lower income have lower unexpected operating profit. The overall findings state that socially responsible firms make less classification shifting than not socially responsible firms.

7.6 Conclusion

In this book chapter, we investigate the constraining effect of corporate social responsibility on earnings management practices of managers. In the literature, a considerable amount of studies investigate this relationship by using the accrual management and real activities management as earnings management methods. Most of them provide evidence of a significant negative relationship between CSR and earnings management. To our knowledge, this is the first study investigating the constraining effect of CSR on classification shifting between operating and non-operating expenses.

We determined the CSR scores of the firms through 57 variables within the framework of stakeholders. Our scale includes variables about the eight stakeholders; employee rights, management structure, consumers, suppliers, product quality, environment, CSR strategies and society (CSR projects and investments). We measured classification shifting between operating and non-operating expenses by using the expectation model developed by McVay(2006) with a modification. We exclude contemporaneous accruals from the model.

Our findings support the typical findings of the previous studies. We found that socially responsible firms are less liable to make earnings management through classification shifting. This finding supports the assumption that socially responsible firms avoid from unethical behaviours to protect their reputations.

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Chapter 8
Scoring of Sustainability Reports with GRI-G4 Economic, Environmental, and Social Performance Indicators: A Research on the Companies Preparing Sustainability Report in Turkey

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Abstract Today, an increasing number of businesses are presenting their non-financial information as well as their financial information to their stakeholders through various reports. Sustainability reports are one of these reports. Sustainability reporting helps organizations to set a target, measure their performance and manage the change to make their activities more sustainable. "*Sustainability Reporting Guidelines*" have been developed by Global Reporting Initiative (GRI), to reveal the sustainability performances of organizations in a systematic way along with the economic, social and environmental dimensions. In this study, the sustainability reports of 13 companies that have published sustainability report for the first time in Turkey in 2016 were analyzed by "content analysis method" within the framework of GRI-G4 reporting principles. The "sustainability reporting scoring model" created by Morhardt et al. (Corp Soc Responsib Environ Manag 9:215–233, 2002) based on GRI 2000 and ISO 14031 standards was used a model in the study. The model in question has been extended based on the GRI-G4 reporting guideline. In the study, a total of 91 indicators (9 economic, 34 environmental and 48 social performance) were scored between 0 and 3, and companies' sustainability reporting scores were calculated. Because of the study, while Metro Wholesale Corporation was the company with the highest sustainability reporting score by 143 points, Boyplast Limited Company was the company with the lowest score by 18 points.

Keywords Global Reporting Initiative (GRI) · Sustainability reporting
Economic performance · Environmental performance · Social performance

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8.1 Introduction

Sustainability reporting is defined by World Business Council of Sustainable Development as "reports open to public prepared to present economic, environmental and social effects of the activities a depiction of their institutional position of the enterprises to internal and external stakeholders". Sustainability reports are prepared with the purpose of presenting information to the stakeholders about the corporate sustainable development activities of an enterprise (Asif et al. 2013). Sustainability reporting assists firms to determine a target, assess their performances and manage change to make their activities more sustainable. Sustainability report is transferring notifications to the stakeholders concerning negative and positive effects of a firm on environment, society, and economy. Therefore, sustainability reporting turns abstract issues into concrete forms, tangible, and thus helps the understanding and management of the effects of sustainability activities on the activities and strategy of the firm Global Reporting Initiative. It is required that sustainability reports shall contain qualitative and quantitative information about the economic, social and environmental efficiency of the enterprise and to what extent that the enterprise could achieve integrating these dimensions of it into sustainable management on the time when the report is published (Daub 2007).

Various firms including the biggest firms of the world publish their sustainability reports in print or electronically on their corporate Websites and the number of these firms increases gradually (Morhardt 2010). Therefore, sustainability reporting has become a part of the daily works of the firms (Isenmann et al. 2007). In this respect, it is significant for the study to analyze the contents of the sustainability reports. Within the direction of the significance, sustainability reports of the first 13 firms to have published sustainability reporting in Turkey are analyzed in the study. There is brief information about GRI-G4 reporting principles in the conceptual framework of the study. Afterward, a literature research on the studies analyzing the contents of sustainability reporting is made and mentioned about major studies. Sustainability reports of those 13 firms prepared for 2015 and taken within the scope of the analysis in the study are scored with sustainability reporting scoring model and it is determined that the firm having the highest score is Metro Wholesale Market firm and the firm having the lowest score is Boyplast. The findings acquired are construed in the conclusion section, which is the last part of the study and the problems detected and solution offers are presented.

8.2 Conceptual Framework

"Global Reporting Initiative" (GRI) was founded in 1997 and recognized in international level because of its partnership with United Nations Environment Programme in 1999 (Alonso-Almeida et al. 2014). It is accepted that GRI has a substantial and critical structure in the field of sustainability reporting (Barkemeyer et al. 2015).

The standards that GRI has developed about content, style and forms of sustainability reports are started to be accepted in general sense (Ionela-Corina 2016). While activity reports of the enterprises that they annually issue mandatorily are focusing on financial details, sustainability reports they issue as per GRI reporting principles and publish voluntarily focus on environmental and social issues (Sierra-García et al. 2015). GRI has displayed strong devotion toward environmental issues since its foundation (Alonso-Almeida et al. 2014).

GRI provides internationally accepted notices and criteria to ensure that the information contained in the sustainability reports is accessible and comparable, and to help business stakeholders act more consciously in their decisions. Notifications and criterion are updated time to time within the direction of the problems detected, improvements and necessities. "G4-Sustainability Reporting Manual" is in force published by following the fourth update of GRI as of February 2017. The published guidelines are presented as reporting principles, standard notices, and user's manual and shown in Fig. 8.1.

First section of the manuals presented by GRI is comprised of reporting principles and standard notifications. In this section, reporting principles, standard notifications, and criterion to be implemented by an institution to prepare a sustainability report in compliance with the manual are given. In User's Manual, which is the second section, there are some explanations about how reporting principles are to be applied, how the information to be explained will be prepared and how various concepts in the manual will be construed.

Fig. 8.1 GRI Sustainability reporting manuals

8.3 Literature Search

Some studies available in the literature about analysis and scoring of contents of sustainability reporting are given in the following.

Al-Shaer and Zaman (2016) investigated the effect of board of management gender diversity on the quality of sustainability reporting with the thought that different boards of directors may behave in more balanced manner about social responsibility and concerns of stakeholders. It was determined because of the study that gender-based different boards of directors are related to high-quality sustainability reports and independent female managers are more efficient in the issue of sustainability reporting quality than female managers. Again, in the result of the study, it was found out that there are some differences in the contents of sustainability reporting when different stakeholder groups are considered.

A uniting approach based on the mutual interaction between essence of consumption and environmental effect, being two important variables for measuring sustainability performances of socioeconomic systems was developed in the study of Nunes et al. (2016). The approach developed in the study was tested on a system having limited source supply and having four basic consumption types. It was concluded in the study carried out that the analysis conducted would help countries, institutions and even individuals to find practical ways of measuring sustainability performance.

Higgins and Coffey (2016) aimed at developing a discourse in their study about "what sustainability reports prepared by corporate do" and "what those can do." It was detected in the end of the study that companies use sustainability reports strategically and sustainability is included in the strategic priorities of companies.

In the study of Dissanayake et al. (2016), it was stated that the sustainability reports in developing countries shall also be studied drawing the attention to the fact that the literature concentrates on the sustainability reports in developed countries. Furthermore, it was expressed that populations of developing countries have a high rate in the population of the world and these countries experience social, political and economic problems. An empirical study was performed on the sustainability reports published by publicly traded companies in Sri Lanka. As a result of the study that social indicators are paid great importance despite the rate of poverty in Sri Lanka and this reason for this case is the pressure of foreign investors in Sri Lanka about global environmental standards is efficient.

Samudhram et al. (2016) investigated sustainability reporting at activity levels of the firms in their study. A 3-column presentation model was used in the study. It was detected in the result of the study that perfect level of environmental performance in activity levels causes weak social performance's not being explained.

Comyns et al. (2013) used a new definition for sustainability reporting of poor quality in their study and aimed at how quality issues can be handled in the reports. The theory on market for lemon of Akerlof was developed in the study by making a distinction between three types of information such as research, experience, and reliance in sustainability reports. The precautions to be taken to increase the quality

of reports are defined in the end of the study and it was reached to the conclusion that type of information shall be considered.

Hsu et al. (2013) developed a significance analysis model in their study to determine the important issues to be included in sustainability reporting. Failure mode and effects analysis were used for developing the model. It was precipitated in the study that the model suggested not only helps determination of the subject matters of sustainability reporting according to the necessities of the stakeholders of companies but also facilitates the efficiency of corporate social responsibility communication.

In their study, Ibrahim et al. (2015) tried to explain the relationship between sustainability reports and acquisition management applications of the institutions offering Islamic products. The sustainability reports that were prepared by publicly traded corporations offering Islamic Financial Products in Malaysia in between 2011 and 2013 were researched by means of panel data analysis method in the study. It was determined in the consequence of the study that the sustainability reporting applications are positive among the firms and financial performance increases the quality of sustainability report itself.

Kumar et al. (2015) compared the information included in sustainability reports of 36 companies engaged in 10 different sectors in India by means of content analysis method in their study. It was detected because of the study that there is not any difference in the contents of sustainability reports that the firms published based on economic, social and environmental dimensions; however, there are some differences in the reports in terms of perception the dimension and scope of sustainability.

González et al. (2015) carried out an experimental study with attractor neural network scale on institutional sustainability reports of a set of firms on global scale. Small-world topology was used in the study for generation of metric network and reciprocal information among the firms was compared in terms of ordinary run and shortcut ratio with acquired configurations. It was indicated in the study that there are mesoscopic blocks in the information distributed by continents and economic sectors.

Munshi and Dutta (2016) conducted a content analysis on sustainability reports published in 2011–2013 basing on GRI indicators of 10 American and 10 Indian firms engaged in manufacturing sector. The information included in the reports was scored between 0 and 2 basing on GRI indicators. It was scored as 2 if not any indicator was mentioned implicitly, and 1 for partial mention, and 0 for not mentioning at all. Because of independent t-test in the study, a significant difference was found out between sustainability reports of American and Indian firms published in research period. Furthermore, multiple regression analysis was also performed for explaining the variations in the quality of sustainability reporting of the firms.

Amran et al. (2014) reviewed the role of board of managers in the quality of sustainability reporting in Asia-Pacific region in their study. Sustainability reports prepared by 113 firms from 12 countries in the region were analyzed in the study. It was determined in the study that institutionalization of the concept of institutional social responsibility in the firms constitutes a sound basis for strengthening the quality of report.

8.4 Purpose and Significance of Research

Increasing numbers of firms present their non-financial details as well as financial ones with their stakeholders through various reports in our day. One of the reports is sustainability reports. The number of sustainability reports published in Turkey also has increased by years as it has been in the world. Therefore, it is important to consider sustainability reports of the study and to analyze the information contained in the reports in a systematic way.

Furthermore, the firms publishing sustainability reports for the first time and that are not active in exchange market are taken within the scope of research. The reason for including the firms publishing sustainability report for the first time into the scope of the research can be explained as follows. Firms' having published reports previously causes them gain experience and this leads firms improving themselves in each report period. Therefore, comparing the reports of a firm publishing report for the first time and for the fourth time will show meaningful results. Again, the reason for including the firms that are not active in the exchange market within the scope of the research is that the firms active in exchange market have more corporate structure compared to the ones not active in exchange market. Also, the firms in exchange market publish reports due to their legal obligations or sometimes because they feel obliged to do so toward their stakeholders. On the other hand, the firms not in market publish sustainability reports voluntarily although it is not an obligation for them. This is quite important. The purpose of the study is determined as scoring sustainability reports prepared by 13 firms published sustainability report for the first time in Turkey in 2016 by means of 91 indicators determined by basing on GRI-G4 reporting principles within the direction of aforementioned importance and revealing the deficiencies detected in the reports and offering solutions.

8.4.1 The Method of the Research

"Sustainability reporting scoring method" was used in the research. The model was for the first time used by (Morhardt et al. 2002) basing on GRI-G1 reporting principles and scoring indicators between 0 and 3. Afterward, Skouloudis et al. (2009) used the model within the direction of same principles by scoring between 0 and 4. Yadava and Sinha (2016) used the model in their study adopting it to GRI-G3 principles and scoring between 0 and 3. In this study, "Sustainability Reporting Scoring Model" was revised basing on GRI-G4 principles and scoring between 0 and 3. The model used in the study is given in Fig. 8.2.

While calculating the score of sustainability reporting of a firm, if an indicator in the report,

Is not mentioned at all, 0 point,
Is mentioned shortly or in titles, 1 point,
Is mentioned broad in scope, (from only 1-year data) 2 points,

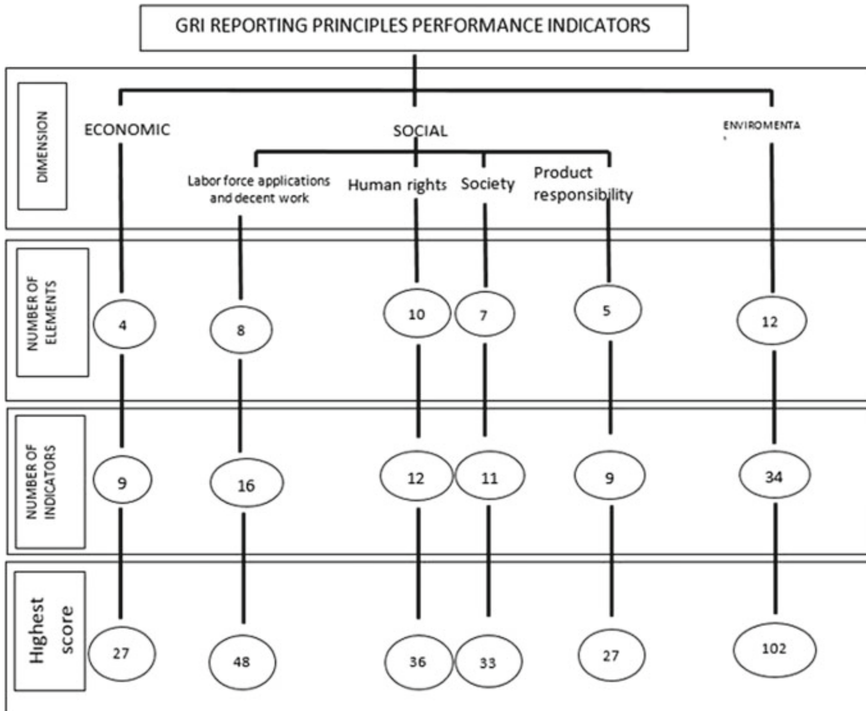

Fig. 8.2 Schematic demonstration of GRI G4 Reporting Principles by different indicators, elements, and dimensions. Highest score is in case of receiving highest score between 0 and 3 from all indicators

Is mentioned broad in scope, systematic and basing on the data more than 1 year, 3 points. The highest score that a firm can reach in the model is 27 from economic elements, 144 from social elements and 102 from environmental elements and in total 273 points.

8.4.2 *Data Set of the Research*

Data set of the research is comprised of sustainability reports of 13 enterprises which have published sustainability report for the first time in 2016 in Turkey. The reports of enterprises are obtained from sustainability reports database in Website of GRI (2018). In this sense, codes and business details of the enterprises covered in the scope of the research are given in Table 8.1.

Table 8.1 Details of the firms taken in the scope of the research and code numbers of the firms used in the research

Short code to be used in the research	Name of the firm
Balorman	Balorman Cooperation
Baycan	Baycan Electric and Construction Cooperation
Boyplast	Boyplast Limited
Defacto	Defacto Apperel Industrial Cooperation
Else	Else Cable ve Plastic Industrial Cooperation
İnterkap	İnterkap Package Industrial Cooperation
Metro	Metro Wholesale Market
Penta	Penta Electronic Cooperation
Sütaş	Sütaş Milk Products Cooperation
Seçil	Seçil Latez Industrial and Trade Cooperation
Starplast	Starplast Plastic Block and Metal Limited
Technocast	Technocast Otomotiv Industrial and Trade Cooperation
Tekkan	Tekkan Plastic Limited

8.4.3 Findings

In this section of the research, findings acquired as a result of the study are given. Firstly, the numbers of economic, environmental and social performance indicators that the companies taken within the scope of the study did not mention in their sustainability reports published in 2016 are given in Table 8.2.

When the information given in Table 8.2 is reviewed, it is observed that social indicators are paid more attention in the reports of majority of the firms taken within the scope of the research. Also, it is concluded from the details in Table 8.2 that the firms include the indicators in economic dimension at the least in the reports. The firm giving place to most indicators in economic, environmental and social dimensions is Metro Toptancı Market. The firm did not include 24 indicators in total (26.37%) in its report and included 67 indicators (73.62%). In addition, the firms mentioning the least numbers of indicators in their reports are Boyplast Tic. Lim. Sti. and Interkap Ambalaj San. Tic. A. Ş.. While both firms included nine indicators (9.89%) in their reports, they did not include 82 indicators (90.10%). Other finding figured out because the research is sustainability reporting scores of firms. Calculated sustainability reporting scores of the firms taken within the scope of research are given in Table 8.3.

When the details given above in Table 8.3 are analyzed, it is observed that Metro Wholesale Market is the firm having highest sustainability reporting score. The firm

Table 8.2 Numbers of indicators that the firms in the scope of the research did not mention in their sustainability reports at different dimensions

Code of the firm	Economic (9)[a]	Environmental (34)	Social (48)	Total (91)
Balorman	8	30	41	79
Baycan	8	30	37	75
Boyplast	8	29	45	82
Defacto	7	30	33	70
Else	7	22	36	45
İnterkap	8	28	44	82
Metro	4	11	9	24
Penta	7	27	34	68
Sütaş	4	25	33	62
Seçil	8	32	40	80
Starplast	8	23	40	71
Technocast	8	32	39	79
Tekkan	8	31	41	80

[a]Total numbers of indicators

Table 8.3 Total sustainability reporting scores of the firms within the scope of the research

Code of the firm	Economic [27][a]	Environmental [102]	Social [144]	Total [273]
Balorman	1	9	13	23
Baycan	2	11	27	40
Boyplast	1	11	6	18
Defacto	5	7	32	44
Else	2	26	20	48
İnterkap	3	15	10	28
Metro	12	57	74	143
Penta	4	21	35	60
Sütaş	14	32	23	69
Seçil	1	6	20	27
Starplast	1	33	19	53
Technocast	1	6	15	22
Tekkan	1	8	13	22

[a]The numbers in parentheses indicate the highest score a competitor can have in the respective dimension

Table 8.4 Details of economic scores of the firms in terms of economic performance, existence of market, indirect economic impacts, and purchasing applications

Code of the firm	Economic performance	Existence of market	Indirect economic impacts	Purchasing applications	Total
Balorman	1	0	0	0	1
Baycan	0	0	2	0	2
Boyplast	1	0	0	0	1
Defacto	2	0	3	0	5
Else	0	1	1	0	2
İnterkap	3	0	0	0	3
Metro	0	4	5	3	12
Penta	0	4	0	0	4
Sütaş	2	3	6	3	14
Seçil	0	1	0	0	1
Starplast	1	0	0	0	1
Technocast	0	1	0	0	1
Tekkan	0	1	0	0	1

has 143 scores in total. When it is drawn attention to the fact that the highest score is 273, the firm has achieved 52% success by reaching 143 scores. Also, it is seen in Table 8.3 that the firm having the lowest sustainability reporting score is Boyplast with 18 points. The success of the firm is 6.59% in proportion to the firm with highest score. The firm having second highest score is Sütaş. The firm has 69 points. The success of the firm compared to highest score is 25.27%. There is a difference of 74 points between the firms having the highest score and second highest score. This difference is about two times more in percentage between these two firms. When the information given in Tables 8.2 and 8.3 is reviewed together, it is also determined that the firms mentioning the most numbers of indicators in their reports have the highest sustainability reporting scores. Another finding concluded because of the research is the details of sustainability reporting scores taken from economic dimension, being sub-factor of the firms. Table 8.4 shows the details of economic scores of the firms in terms of economic performance, existence of market, indirect economic impacts and purchasing applications.

When Table 8.4 is studied, it is seen that six firms of the ones taken within the scope of research give information about economic performance, seven firms about existence of market, five firms about indirect economic impacts, and two firms about purchasing applications factors. The details about the existence of market are given at the most and the least mentioned one is purchasing applications. Another finding reached within the scope of the research is the detail of environmental points of the firms. The details of environmental performance points of the firms are given in Table 8.5.

Table 8.5 Details of environmental performance points of the firms

Code of the firm	Materials	Energy	Water	Biological diversity	Emissions	Wastewaters and wastes	Products and services	Adaptation	Shipping	General	Assessment of suppliers in terms of environment	Env. compliant mechanisms	Total
Balorman	0	2	2	2	0	3	0	0	0	0	0	0	9
Baycan	2	9	0	0	0	0	0	0	0	0	0	0	11
Boyplast	4	5	0	0	0	0	2	0	0	0	0	0	11
Defacto	2	2	1	0	0	0	2	0	0	0	0	0	7
Else	4	9	2	0	0	2	3	0	2	0	4	0	26
İnterkap	0	4	0	0	9	2	0	0	0	0	0	0	15
Metro	0	15	4	0	14	8	6	0	0	3	6	1	57
Penta	0	3	0	0	6	3	0	3	3	0	3	0	21
Sütaş	0	9	8	0	12	3	0	0	0	0	0	0	32
Seçil	0	6	0	0	0	0	0	0	0	0	0	0	6
Starplast	6	9	0	0	9	0	3	0	3	3	0	0	33
Technocast	0	3	0	0	0	3	0	0	0	0	0	0	6
Tekkan	2	3	0	0	0	3	0	0	0	0	0	0	8
Total	20	79	17	2	50	27	16	3	8	6	13	1	

Details of environmental points of the firms are given in Table 8.5. When the information given in Table 8.5 is analyzed, it is observed that firms taken within the scope of the research give most information about energy and least information about environmental compliant mechanisms, being two elements of environmental performance, in sustainability reports. Furthermore, it is seen that Metro Wholesale Market having the highest point in sustainability reporting score rank did not give information about materials, biological diversity, adaptation, and shipping factors among environmental factors in the report. Again, Boyplast having the least point in sustainability reporting scoring did not give information in its report about water, biological diversity, emissions, wastewaters and wastes, adaptation, shipping, general, assessment of suppliers in terms of environment and environmental compliant mechanisms. Another finding of the research is the details of social dimension of sustainability reporting scores of the firms. As it is known, social dimension is comprised of workforce applications and decent work, human rights, society and product responsibility sub-factors. In this context, point details of workforce and decent work sub-factors of the firms taken within the scope of the research are given in Table 8.6.

When the information given in Table 8.6 is analyzed, it is observed that firms mentioned about occupational health and safety factor at the most and workforce/management relationship at the least in their sustainability reports. Secil Rubber firm is the only firm that did not give information about occupational health and safety in its report, and all other firms within the scope of research gave place to factor in their reports. Another attention-grabbing point in Table 8.6 is that workforce applications' compliant mechanism is only mentioned by Metro Wholesale Market in the report. Other firms taken within the scope of research did not mention about factor in their reports. Another finding reached within the content of the research is the points of the firms about human rights dimension. Details of human rights dimension are presented in Table 8.7.

Table 8.7 shows the details of the factors that the firms include in human rights sub-factor. When the details in Table 8.7 are analyzed, it is observed that none of the firms within the scope of research gave information about assessment factor in the reports. Also, the only firm taken into research and gave information about safety applications and rights of local people is Metro Toptancı Market. While the firms get most points from child labor sub-factor, respectively, forced and compulsory labor and assessment of suppliers in terms of human rights sub-factors show up in the rank. Another finding reached within the content of research is the reporting points of the firms in society dimension. Table 8.8 gives details about the points that firms get in society sub-factor and the elements included in their reports.

When Table 8.8 is analyzed, it is seen that eight firms did not mention any of sub-factors of society in the reports. Aforementioned firms comprise 61.5% of the firms taken within the scope of research. This number is quite high. Again another point drawing attention when the details in Table 8.8 are reviewed is that the firms get the highest score from "Anti-corruption" sub-factor. In relation with the sub-factor, five firms contained this information in their reports and total points that the firms got from this sub-factor is 13. Metro Wholesale Market did not give information only about local communities sub-heading in its report and gave information about

Table 8.6 Point details of workforce and decent work sub-factors of the firms

Code of the firm	Employment	Workforce/Management relationship	Occupational health and safety	Education and training	Diversity and equality of opportunities	Equal wages for women and men	Assessment of suppliers in terms of workforce applications	Workforce applications' compliant mechanisms	Total
Balorman	3	0	3	0	0	0	0	0	6
Baycan	9	1	8	6	3	0	0	0	27
Boyplast	3	0	1	0	0	0	0	0	4
Defacto	3	0	3	8	3	0	3	0	20
Else	4	0	2	4	0	0	0	0	10
İnterkap	0	0	6	2	0	0	0	0	8
Metro	3	1	11	6	3	1	6	3	34
Penta	6	0	6	4	2	2	0	0	20
Sütaş	3	0	3	4	1	1	0	0	12
Seçil	3	0	0	4	0	0	0	0	7
Starplast	3	0	4	2	0	0	0	0	9
Technocast	3	0	3	4	0	0	0	0	10
Tekkan	3	0	3	3	0	0	0	0	9
Total	46	2	53	47	12	4	9	3	

Table 8.7 Human rights sub-factor points of the firms

Code of the firm	Human rights	Anti-discrimination	Organization and collective bargaining right	Child labor	Forced and compulsory labor	Safety applications	Rights of local people	Assessment	Assessment of suppliers in human rights term	Human rights compliant mechanism
Balorman	0	1	0	1	1	0	0	0	0	1
Baycan	0	0	0	0	0	0	0	0	0	0
Boyplast	0	0	0	0	0	0	0	0	0	0
Defacto	1	0	0	1	1	0	0	0	1	0
Else	0	0	1	1	1	0	0	0	0	0
İnterkap	0	2	0	0	0	0	0	0	0	0
Metro	4	1	0	0	2	1	1	0	4	0
Penta	0	0	0	2	0	0	0	0	4	0
Sütaş	0	0	0	0	0	0	0	0	0	0
Seçil	0	1	3	3	3	0	0	0	0	0
Starplast	0	0	0	2	0	0	0	0	0	0
Technocast	0	1	0	1	1	0	0	0	0	1
Tekkan	0	1	0	1	1	0	0	0	0	1
Total	5	7	4	12	10	1	1	0	9	3

Table 8.8 Details of points of the firms in society sub-factor

Code of the firm	Local communities	Anti-corruption	Public policy	Uncompetitive behavior	Adaptation	Assessment of the suppliers in terms of the effect on society	Compliant mechanisms concerning the effects on society
Balorman	0	0	0	0	0	0	0
Baycan	0	0	0	0	0	0	0
Boyplast	0	0	0	0	0	0	0
Defacto	0	1	0	0	0	0	0
Else	0	1	0	0	0	0	0
İnterkap	0	0	0	0	0	0	0
Metro	0	6	1	1	0	6	1
Penta	0	0	0	0	0	0	0
Sütaş	3	3	0	0	1	0	1
Seçil	0	0	0	0	0	0	0
Starplast	0	2	0	0	0	0	0
Technocast	0	0	0	0	0	0	0
Tekkan	0	0	0	0	0	0	0
Total	3	13	1	1	1	6	2

six headings and became the firm giving most information about society sub-factor and getting highest score among the firms taken within the scope of the research. The last finding reached within the scope of research is the points received by the firms about product responsibility dimension. In this sense, product responsibility sub-factor points and details of the firms are given in Table 8.9.

When the details in Table 8.9 are analyzed, it is observed that three firms did not give information about product responsibility sub-dimension in their reports. These firms constitute 23% of the firms taken within the content of research. Also, another point reached from the information included in Table 8.9 is that the firms received the highest score about "Labeling of products and services" sub-factor. While firms 30 points about this sub-factor in total, the highest score was 5 taken by Else Kablo firm. Metro Wholesale Market firm gave information in its report about five headings included in product responsibility sub-dimension and received 12 points in total and therefore became the firm reporting related to all sub-headings and having highest score among the firms.

8.5 Conclusion and Discussion

We consider it shall be surmised from the fact that sustainability reporting scores of the firms calculated in the research that the reports of the firms are of low quality in terms of content and quality. The reason for that is, the firms taken within the scope

Table 8.9 Product responsibility sub-factor point details of the firms

Code of the firm	Customer safety and health	Labeling of products and services	Marketing communica-tions	Customer confidentiality	Adaptation
Balorman	0	3	0	0	0
Baycan	0	0	0	0	0
Boyplast	0	2	0	0	0
Defacto	2	5	0	0	0
Else	0	4	0	2	0
İnterkap	0	0	0	0	0
Metro	4	4	2	1	1
Penta	0	3	0	3	3
Sütaş	1	2	0	0	0
Seçil	0	3	0	0	0
Starplast	0	3	0	3	0
Technocast	0	1	0	0	0
Tekkan	0	0	0	0	0
Total	7	30	2	9	4

of the research are the firms publishing sustainability report for the first time and not engaged in exchange market. Furthermore, it is quite positive that the firms attempt to publish sustainability reports in our country where publication of sustainability reporting is not made mandatory by legal legislations, more clearly, publication of sustainability reporting is voluntary. In the same manner, firms prepared sustainability reports in compliance with GRI-G4 reporting principles.

As it is known, GRI reporting principles comprises of general standard notifications and special standard notifications. While GRI made the firms to publish report basing on GRI's standards to explain general standard notifications in their reports, special standard notifications are up to preference of the firms. When it is taken into consideration that the reports of the firms taken within the scope of the research are reached over GRI database, while firms are giving explanations about the mandatory issues in their reports, they also make adequate explanations as per their measures about the issues left up to their choices. Another reason for low points can be the fact that firms published reports for the first time. Preparing a sustainability reporting requires a great endeavor and process. Knowledge and experiences learnt while preparing the first report will help elimination of the deficiencies and faults in preparation of other reports.

Another attention-grabbing point in the research is purchasing applications sub-factor of economic dimension. Only two firms give information about the factor; other firms did not give any information about the issue in their reports. It draws attention that firms concentrated on existence of market and economic performance sub-factors in economic dimension. Our suggestion for the enterprises both included in the research and planning to publish report in the future is that information on purchasing

applications being sub-factor of economic dimension shall be given in their reports. The factor in question is comprised of "G4-EC9 Rate of the Expenditures made to Local Suppliers in Prominent Operation Areas" indicators. We consider that firms' obtaining information and reporting about factor does not require much endeavor or spending. Furthermore, giving information about the relationship with local suppliers in sustainability report in a world where the importance of regional development is increasing gradually will positively affect the relations of the firm with the society and positively affect the prestige of the firm.

When the details of the environmental scores of the firms are analyzed, it stands out that all firms gave information about "Energy" sub-factor. It can be said that the fact that energy resources and using energy efficiently are significant both for firms and countries are realized and that all firms reporting for the first time gave information about the factor is of substantial importance. Another point which is important in environmental scoring details is that only one firm gave information about "Biological diversity" and "Environmental Compliant Mechanisms" factors. While it can be accepted as a situation that can be considered normal for the firms that do not include information about biological diversity in their reports due to their sector, it is considered that there are two reasons for firms not to include any information about Environmental Compliant Mechanisms in the reports. First one of these is the event that there are not complaints as the firms do not give harm to the environment because of their activities. Another case is that firms cannot assess the complaints as there is no attempt of the firms on environmental compliant mechanism. Second case dominates more. In this sense, it is suggested to the firms being conscious of publishing sustainability report to create a structure to mind environmental complaints and assess these complaints.

The firms taken within the scope of research gave little information about "Society" dimension in the reports. As it can be observed in the findings section of the study, firms received the least point from society dimension. Influencing all society as a result of their activities, organizations explain-ing the elements in societal dimension clearly and in full in their reports will increase the quality of the sustainability reports prepared and to be prepared and the value of the reports will also increase.

When the findings obtained because of the study are dealt with in general, it is considered that firms included in research perceive sustainability reports as reporting only for explaining effects of environmental dimension. The fact that firms gave more information about environmental factors in their reports lies behind this thought. Another opinion is that most of the firms gave "past" information in their sustainability reports and did not give any information about their targets and strategies related to future. Firms' giving information about their targets and strategies about the factor related to the future as well as giving information about past information will also increase the quality and advantage of the report.

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Chapter 9
Towards a Mandatory Corporate Governance Regime: Empirical Evidence from Turkey

Halit Gonenc and Yasemin Zengin-Karaibrahimoglu

Abstract This paper aims to understand the effects of the transition from "comply or explain" to a partially mandatory corporate governance regime on the firm value using the recent sequential corporate governance reforms in Turkey. Using a sample of 1,120 Turkish listed firms for the years 2009 to 2014, we document that, in the short term, the initial market reaction to the new corporate governance regime is positive. Our initial results indicate that the induced benefits of the new corporate governance code outweigh the compliance costs imposed by the new code. Furthermore, our results entail that, over the period, there is a shift in the expectations of the market participants toward more the compliance costs. In the long term, we find a significant increase in Tobin's Q for firms with strong corporate governance in the pre-reform period and subject to greater mandatory provisions in the post-reform period. In corporate governance literature, a central question not yet answered is whether an "Anglo-Saxon"-based corporate governance system is well suited to an emerging market context. Our paper contributes to the debate on the optimal corporate governance regime by documenting additional empirical results to the limited academic studies regarding the value implications of a partially mandatory corporate governance regime in an emerging market. Our results provide useful insights for other capital market regulators in emerging markets to understand possible impacts of such a transition in an emerging market context.

Keywords Mandatory provisions · Corporate governance reform
Market reaction · Firm value · Emerging market

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9.1 Introduction

In 2011, Turkey had made reform in the corporate governance (CG) regime and shifted from Comply-or-Explain (C/E) towards a partially mandatory approach. The new CG code requires listed firms in Borsa Istanbul (BIST) to comply with some of the previously recommended provisions. Correctly, it sets mandatory provisions regarding general assembly meeting, conflict of interest, and resolutions for some issues, significant transactions, related party issues, the structure of the board of directors, appointment of independent members and board committees. Firms were recommended to comply with the mandatory provisions from the date of publication of the new Communiqué regarding the new CG code and were given six months to comply with the requirements, until June 2012.

The transition from C/E approach to a partially mandatory regime has caused an extensive debate among all capital market participants in Turkey. Considering CG approaches as a continuum from voluntary (enabling, soft-law or laissez-faire approach) to mandatory (binding or hard law) regimes, the previously adopted C/E approach, where the adoption is voluntary, but the disclosure is mandatory, lies somewhere between these two extremes. Without any doubt, with this significant step of moving from C/E to a partially mandatory regime, the aim of Capital Markets Board of Turkey (henceforth CMB) was to improve the effectiveness of Turkish firms' CG structure, enforce the adoption of good CG practices and enhance the investors' confidence. A wholly or partially binding CG mechanism has since been adopted by the USA, India, South Korea, Saudi Arabia and Israel. With this substantial step, Turkey became one of those countries that use partially and/or wholly binding rules for CG provisions (OECD 2015, p. 20; see Table 9.1).

The question of whether a mandatory CG regime overcomes the weaknesses of a voluntary CG regime is vital for regulators and market participants. Proponents of a free market argue that a voluntary CG regime would be enough if the induced benefit of CG code exceeds the imposed compliance cost—"*benefit-inducing*". In contrast to this view, the opponents argue that complying with CG codes is costly and if the imposed compliance cost is higher than the induced benefit—"*cost-imposing*", firms may abstain to comply with CG regulations voluntarily (Anand 2006; Jain and Rezaee 2006; Zhang 2007). Therefore, a mandatory regime would be a better option and capital markets should be regulated in a way ensuring that all firms implement CG regulations in practice. Motivated by the debate on the optimal CG framework, using a unique hand-collected data for non-financial firms listed in BIST between the years 2009 and 2014, this paper aims to examine the capital market reaction to the new CG regime and the impact of the transition from C/E to a partially mandatory CG approach on the firm value.

Turkey represents an excellent setting to examine the consequences of a CG reform towards a mandatory regime for two reasons. First, sequential CG reforms provide a natural experimental design to conduct a value-driven analysis on the implications of such a transition in practice. Second, following the opposing reactions to some of the mandatory provisions, mainly from the controlling shareholders, CMB

Table 9.1 The main elements of the regulatory framework

Implementation mechanism	Approach C/E: comply or explain B: Binding	Disclosure in annual company report	Basis for the framework L: Law or Regulation R: Listing Rule	Surveillance R: Regulator S: Share Exchange P: Private Institution
Argentina	C/E	Required	L	R
Australia	C/E		R	S
Austria	C/E	Required	L	
Belgium	C/E	Required	L	R
Brazil	No	–	–	
Canada	C/E	Required	L	
Chile[a]	C/E	Not required	L	R
Czech Republic	C/E	Required	–	
Denmark	C/E	Required	L & R	S
Estonia	C/E	Required	L	
Finland	C/E	Required	R	S
France	C/E	Required	L	P
Germany	C/E	Required	L	
Greece	C/E	Required	L	
Hong Kong, China	C/E	Required	R	S
Hungary	C/E	Required	L	
Iceland	C/E	Required	L	S
India	**B**	**Required**	**R**	
Indonesia	No	–	–	
Ireland	C/E	Required	R	
Israel	**B & C/E**	**Required**	**L**	**R**
Italy	C/E	Required	L	
Japan[b]	C/E	Required	R	S
Korea[c]	B	Required	L	R & S
Luxembourg	C/E	Required	R	S
Mexico	–	–	–	
Netherlands	C/E	Required	L	R
New Zealand	C/E	Required	R	R
Norway	C/E	Required	R	
Poland	C/E	Required	L	
Portugal	C/E	Required	L	R

(continued)

Table 9.1 (continued)

Implementation mechanism	Approach C/E: comply or explain B: Binding	Disclosure in annual company report	Basis for the framework L: Law or Regulation R: Listing Rule	Surveillance R: Regulator S: Share Exchange P: Private Institution
Saudi Arabia	**B**	**Required**	**L**	
Singapore	C/E	Required	R	
Slovak Republic	C/E	Required	L	
Slovenia	C/E	Required	L	
Spain	C/E	Required	L	R
Sweden	C/E	–	–	
Switzerland[d]	No	–	–	
Turkey	**B & C/E**	**Required**	**L**	**R**
United Kingdom	C/E	Required	R	R
United States	**B**	**Required**	**R**	

Source OECD, Corporate Governance Factbook, 2015, p. 20

[a]In Chile, listed companies are obliged to perform a self-assessment about the adoption of the good practices of corporate governance, and report on a "comply or explain" basis

[b]In Japan, the Financial Services Agency, and Tokyo Stock Exchange published in 2014 a draft Corporate Governance Code under the "comply or explain" framework

[c]This information for Korea updated by authors in consultation with a scholar who is working on corporate governance in Korea

[d]In Switzerland, the Code states that it uses the "comply or explain" principle, but it does not indicate where the company has to explain if a company's corporate governance practices deviate from the recommendations

retreated some provisions and weakened the new CG code by withdrawing some mandatory provisions. Among all favourable events in line with good CG practices, the withdrawal of some provisions creates a controlling research design to understand how market expectations change about the CG reforms.

The economic consequences of mandatory CG provisions heavily depend on countries' previous institutional setting (Black and Khanna 2007). Emerging markets (EMs) differ from developed markets regarding institutional contexts (Claessens and Yurtoglu 2013). As some of the critical institutional features are not present in many EMs, these countries are struggling with how to set an optimal CG framework that meets countries' dynamics and ensures effective implementation of CG codes. A question not yet fully answered is whether an "Anglo-Saxon"-based CG regime is well suited to EMs as opposed to alternatives (Mueller 2006). C/E approach can be effective if there is an active investors' monitor, media awareness, enforcement by regulators, encouragement by private business associations (Kossov 2013), strong country-level governance system (Claessens and Yurtoglu 2013) and firms' incentives to adopt CG code. Unlike developed markets, in EMs, media awareness and

investors' monitoring are low, and the governance system regarding enforcement and supervision by regulators is not strong. In such an environment, firms' incentives to adopt CG code are expected to be limited. The institutional environment and limited incentives in EMs raise the question of whether the transition from C/E approach to mandatory CG provisions provides an optimal solution to encourage firms in EMs to improve their CG structure. In that term, Turkey, as one of the largest emerging economies, has an excellent fit to study the consequences of such a transition towards a mandatory CG regime.

This paper extends the literature on the economic implications of shifting towards a mandatory CG in two ways. First, it contributes to the literature by documenting additional empirical findings of such a transition in an EM. The existing academic research is inconclusive on the optimal CG regime partly because of the limited number of jurisdictions using mandatory CG regime. Among 41 major economies in the world, while 31 jurisdictions have adopted a C/E approach, a partially and/or wholly mandatory CG regime has been enacted only in 5 jurisdictions (OECD 2015). Sarbanes-Oxley (SOX) in the USA, Claus 49 in India and the 1999 Commercial Act and the Code of Best Practices for Corporate Governance in South Korea are crucial wholly or partially CG reforms. They might be seen as a similar setting, regarding the transition to a mandatory and/or partially mandatory CG regime. However, Turkey's institutional setting and the transition sequence show different characteristics compared to those jurisdictions. Turkey is distinct from the USA regarding the financial and economic development, the institutional environment, the legal origin and the source of agency problems. Unlike in the USA, in Turkey, like in many other emerging or continental European countries, the ownership structure is concentrated, and the existence of business groups is dominant. Consequently, agency problems arise between minor and significant shareholders (Yurtoglu 2000, 2003). Although Turkey strengthened investor protection and transparency through the regulations since 2003, it is still considered relatively underdeveloped compared to other emerging economies (World Bank 2014). Turkey is also different than India and South Korea, regarding the legal origin, business culture and capital markets. According to Newell and Wilson (2002), compared to South Korean and Indian firms, Turkish firms perform poor in CG. Although both Turkey and South Korea are civil law countries, Turkey has French origin and South Korea has German origin (La Porta et al. 2008).[1] In contrary, India is a typical law country with English legal origin (La Porta et al. 2008). Moreover, India, with its active capital markets, weak CG structure and significant reliance on other sources to raise capital, shows a mixed institutional setting compared to other EMs (Dharmapala and Khanna 2013). The implementation of CG is associated with differences in business culture, financing options, corporate ownership structure and legal origin (Zattoni and Cuomo 2008). Thus, the findings of this study contribute to the literature by providing additional insights into the limited studies on the consequences of mandatory provisions in EM.

[1]Although both of them are considered within civil law and have many similarities in procedural characteristics, German law contains greater judicial lawmaking relative to French law.

Table 9.2 Summary of major requirements of the new corporate governance code

The Communiqué Serial: IV, No: 54 on Code Regarding Determination and Application of Corporate Governance Code (date of official gazette: 11.10.2011). The Communiqué introduces the obligation for ISE National-30 Index companies (excluding banks) to comply with some of the corporate governance code. Summary of the main requirements of the Communique:
– At least one-third of the Board must be composed of independent directors – Detailed disclosure provisions are foreseen regarding general shareholders meetings – Major material decisions like the sale or purchase of material tangible assets or the issuance of guarantees in favor of third parties cannot be executed without a general assembly approval
Communiqué Serial: IV, No: 56 on Code Regarding Determination and Application of Corporate Governance Code (date of official gazette: 30.12.2011). Summary of the main requirements of the Communique:
– According to their systemic importance, companies are divided into three tiers which are required to obey different level of mandatory rules. Under the Communiqué, Tier 1 companies are required to comply with all mandatory Corporate Governance Code while Tier 2 and Tier 3 companies may benefit from certain exemptions – Detailed provisions regarding the structure of the management board have been enacted. In this regard, some independent directors should be defined in line with free float rate of the company and be at least one-third of the Board. However, the general assembly of companies with high free float rate may limit the number of independent directors to half of the total number of board members – The criteria for independence and appointment procedure have also been redesigned. For Tier 1 companies, the list of independent director candidates should be sent to the CMB before the general assembly, and if the CMB has a negative opinion regarding any of the candidates, those candidates may be nominated as an independent director at the general assembly – The decisions on the significant transactions (like the sale or purchase of material tangible assets, delisting decisions, corresponding 10% of the equity capital) should be submitted to shareholders for their approval before becoming effective. Moreover, approval of a majority of the independent directors is required for these transactions before the general assembly. In case that the majority of the independent board members do not approve the transaction, this situation shall not be brought to the general assembly. If these transactions fall under the category of related party transactions, the parties shall not vote in the relevant general assembly meeting. – The number of committees that should be created in the management board has been increased. Nomination, remuneration, corporate governance, risk management (The Committee of Early Identification of Risks) and audit committees should normally be created within the management board. However, the functions assigned to three committees (nomination, remuneration, risk management committees) may be performed by the corporate governance committee

(continued)

Table 9.2 (continued)

The Communiqué Serial: IV, No: 57 on the Amending of the Communiqué Serial: IV, No: 56 (date of official Gazette: 11.10.2011). Summary of the main amendments (reversals) in the mandatory provisions introduced by the Communique:
– The statement of "In case that the majority of the independent board members do not approve the significant transaction, this situation shall not be brought to the general assembly" has been revised as "In case that the majority of the independent board members do not approve the transaction, this situation shall be disclosed at Public Disclosure Platform in a manner including a satisfactory explanation and the transaction shall be submitted to the approval of majority votes in the general assembly. In general assembly meetings, the resolution shall be taken through a voting, in which parties to the transaction and the persons related to it cannot vote." The criteria of the majority of the independent members' approval have been withdrawn – The requirement that "Independent board members residing in Turkey by the Income Tax Law (I.T.L)" has been revised as "It is sufficient that the independence criterion is ensured by at least half of the independent board members". All members criteria have been extenuated – The statement of "In this regard, the number of independent directors should be defined in line with free float rate of the company and be at least one-third of the Board of Directors. However, the general assembly of companies with high free float rate may limit the number of independent directors to half of the total number of board members" has been revised as "The number of independent board members cannot be less than one-third of the total number of board of directors". The free float criteria have been withdrawn

Source All information was gathered directly from CMB Monthly Bulletin October and December (CMB 2011c, d)

Second, this study contributes to literature regarding the capital market reaction to the mandatory CG by presenting how the response of market participants changes over a period about the induced benefits and imposed compliance costs. The fundamental CG reforms in Turkey are stepwise. After the release of the first CG reform, within two months period, the scope extended from ten to twenty mandatory provisions and the coverage from a limited number of firms to all listed firms. Also, the transition sequence of CG reforms includes specific retreatment—the withdrawal of some significant binding provisions. Hence, this stepwise sequence allows us to examine the change in overall market expectations to mandatory CG provisions (see Table 9.2).

9.2 Institutional Environment in Turkey

Turkey is a French origin civil law country where firms are characterized by concentrated (Ararat et al. 2015; Hacımahmutoglu 2007) and complex-pyramidal ownership structure with dual-class shares (Yurtoglu 2000, 2003). Family members are usually CEOs, board members or top managers (Demirag and Serter 2003). Business groups (holding companies) are the most common form of organizational structure among large Turkish firms (Gonenc and Aybar 2006).

During the last decade, there were various changes in Turkey's institutional settings to be more in line with international legislation. Individually, in 2003, CMB introduced the CG code of Turkey based on C/E approach and, to improve investor monitoring, CMB supported the CG code with a requirement of "corporate governance compliance report" for all listed firms starting from 2005 (CMB 2004). Additionally, in 2005, to trigger the good practices, BIST introduced "Corporate Governance Index (XKURY)".[2] However, academic research and economic facts do not unequivocally support the idea that the C/E approach was successful in Turkey. Unlike BIST's assumption about the willingness of firms to be included in the XKURY, the number of firms with a qualified CG rating and volunteer to be included in XKURY has not been achieved until 2007.[3] This delay shows that C/E approach was not working correctly to encourage firms to implement CG code voluntarily. The slow development of the implementation and enforcement of CG is attributed to the dominant ownership structure of Turkish firms (Aksu and Kosedag 2006).

Furthermore, previous academic studies conducted in Turkey show contradicting results about Turkish listed firms' CG effectiveness. Some of the earliest studies in Turkey reveal that CG has an insignificant or adverse impact on firm performance (e.g. Ararat et al. 2010; Arslan et al. 2010; Kaymak and Bektas 2008; Sengur 2011) and financial reporting quality (Karaibrahimoglu 2010; Memis and Cetenak 2012). Turkish listed firms experience weak transparency and disclosure scores compared to developed countries (Aksu and Kosedag 2006). Furthermore, the level of compliance with the CG code was far below expectations, and firms also fail to explain the reason for non-compliance (Ararat and Yurtoğlu 2012). In contrary, others document a positive impact of various good CG practices on firm performance, company value (e.g. Gurbuz et al. 2010; Needles et al. 2012; Kula 2005) and firms' investment performance (Orbay and Yurtoglu 2006).

To improve the CG effectiveness and enhance the investor confidence, in June 2010, CMB threw the first step to improving CG framework by making a press release about its initiative to revise the current CG code by the European Union. Following this attempt, in October 2011, CMB introduced mandatory provisions previously recommended in the CG code but limited the coverage of the new code with BIST30 firms. Furthermore, together with the feedback received from market participants and business associations, on 31 December 2011, CMB increased the number of mandatory provisions and extended the coverage to all listed firms (CMB 2011a) (see Table 9.2).[4]

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[2]Previously, it was named "Istanbul Stock Exchange (ISE)".

[3]In 2007, there were 319 companies listed on BIST. As of December 2014, 55 out of 386 companies are included in XKURY. Since the introduction of the index, only 14% of the listed companies met the criteria and preferred to be in XKURY.

[4]In 2014, CMB issued an updated CG code with the Communiqué on Corporate Governance (II-17.1) (published on 03.01.2014). Between the years 2011 and 2014, from the first release until the final version of mandatory CG provisions, CMB made five amendments; (i) the Communiqué Amending the Communiqué Regarding Determination and Implementation of Code of Corporate Governance Serial: IV, No: 57 (published on 11.02.2012) (ii) the Communiqué Amending the Com-

9.3 Literature Review and Hypotheses Development

9.3.1 Relevant Literature

In an attempt to provide empirical findings on the market reaction to and economic consequences of mandatory CG code, a vast amount of literature examines the USA, and SOX, which is mostly mandatory. While many concurrent studies investigate the impact of SOX, due to the differences in the mandatory provisions examined and research methodologies, there is no consensus on how the market reacts to this reform and what the economic consequences are. DeFond et al. (2005) examine the impact of mandatory financial expert appointment on the board and conclude that while firms with the voluntary appointment of financial experts to the board in the pre-SOX period have a positive abnormal return, the impact of mandatory appointment is not apparent in the post-SOX period. Ahmed et al. (2010) document that SOX causes a decline in cash flows (on average by 1.3% of total assets), which is notably more significant for small, more complex and lower-growth firms.

High-compliance costs of mandatory provisions determined in SOX affect the listing/delisting activities of firms. Notably, some small and poor performing firms tend to be delisted during the post-SOX period (Engel et al. 2007; Kamar et al. 2009; Leuz et al. 2008). Zhang (2007) finds that the market reaction to SOX is negative in the USA, particularly for foreign firms already complying with SOX, implying that SOX imposes additional costs on complying firms. Additionally, Iliev (2010) examines the impact of the compliance with section 404 of SOX and finds SOX leading to more conservative reporting but also imposing additional costs for firms and consequently causing a decrease in the market value of small firms. Recent studies supporting those findings document that the compliance costs of SOX significantly exceed its benefits (Li 2014).

In contrast to those studies, some others find that the market reaction to SOX is positive (Jain and Rezaee 2006; Li et al. 2008). Jain and Rezaee (2006) document that, in the pre-SOX period, the market reaction is even more massive for firms with a high level of CG compliance, reliable financial reporting and credible audit functions. Additionally, both Li et al. (2008) and Cohen et al. (2008) reveal that SOX constrains earnings management and improves the quality of financial reporting. Furthermore, Jain et al. (2008) find that SOX has positive long-term liquidity effects, higher financial reporting quality, size, market price, volatility and volume. Choi et al. (2008) examine the market reaction to SOX by considering the level of shareholder rights of firms and find that firms with weak shareholder rights experience positive

muniqué Regarding Determination and Implementation of Code of Corporate Governance Serial: IV, No: 60 (published on 26.06.2012) (iii) the Communiqué Amending the Communiqué Regarding Determination and Implementation of Code of Corporate Governance Serial: IV, No:61 (published on 13.09.2012), (iv) the Communiqué Amending the Communiqué Regarding Determination and Implementation of Code of Corporate Governance Serial: IV, No: 63 (published on 22.02.2013) and (v) the Communiqué Amending the Communiqué Regarding Determination and Implementation of Code of Corporate Governance Serial: IV, No: 64 (published on 06.04.2013).

abnormal returns around SOX announcement. Additionally, they document that firms with strong (weak) shareholder rights decrease (did not change) the level of protection in the post-SOX period.

In contrast to the vast amount of empirical studies representing the implications of mandatory CG regime in the USA, studies examining the impact of binding CG reforms are limited in EM. There are few significant event studies (e.g. Litvak 2007; Black and Khanna 2007; Dharmapala and Khanna 2013; Black and Kim 2012) conducted on this issue, but their findings are not directly comparable for all EMs. Litvak (2007) examines foreign firms, including the ones in emerging economies, and finds that the share prices of foreign firms subject to SOX decreased significantly, compared to foreign firms not subject to SOX. Black and Khanna (2007) examine the adoption of Clause 49 in India, which is significant governance reforms with mandatory provisions, based on different active implementation periods for large, medium- and small-sized firms. They find a positive market reaction to the announcement of the new CG reforms for firms expected to comply early compared to others. Moreover, they document that faster-growing firms and cross-listed firms have more benefit compared to others. The findings indicate that in the Indian institutional environment, the market perceives the necessary CG reforms as benefit-inducing. In a more recent study, Dharmapala and Khanna (2013) investigate the impact of Clause 49 on firm value in India and find a substantial positive impact of the reforms with the introduction of sanction mechanism in 2004. Furthermore, their event study results show that while firms subject to Clause 49 have positive abnormal returns around the announcement dates, the results are not significant. Moreover, Black and Kim (2012) conduct an event study by using Korean law in 1999 that requires 50% outside directors and an audit committee for large firms and find that there is an increase in the share prices of large firms compared to mid-sized ones.

9.4 Hypotheses Development

9.4.1 Expected Short-Term Value Implications

The directional association between capital markets' reaction and a new regulation depends on the perspective one takes. We consider two possible perspectives for the source of the response of the stock market to the new CG code: (1) *benefit-inducing* and (2) *cost-imposing*. Under the benefit-inducing hypothesis, the market expects that the induced benefits of the new reform outweigh the imposed costs to comply with the proposed changes. Therefore, the announcement returns for the initiatives will be positive. In contrary, under the cost-imposing hypothesis, the market considers that the imposed compliance costs outweigh the induced benefits. Thus, the announcement returns for the initiatives will be negative (Anand 2006; Jain and Rezaee 2006; Zhang 2007).

This paper examines the impact of four key events regarding the transition towards mandatory CG regime in Turkey, which have the most important regarding encompassing news regarding the CG reforms in Turkey (see Table 9.3 for all event dates).

– 16 June 2010: CMB made a press release about its initiative to revise the current CG code by the European Union—*first announcement*
– 11 October 2011: CMB released the mandatory CG Regulation
– 30 December 2011: CMB extended the scope of firms that will apply the mandatory CG regulation
– 11 February 2012: CMB reversed and/or withdrew some of the significant mandatory provisions introduced in previous regulation—*the withdrawal of some provisions*.

16 June 2010 is the first time that the market was informed about the possible changes in the CG code. Thus, this date is the critical event date of our paper. However, on this date, the content of the code, the coverage and scope of the new regulation was unclear. Releasing such vague information created an ambiguity in the market. Thus, from an investors' point of view, it is hard to evaluate which one of two alternative hypotheses—"benefit-inducing" versus "cost-imposing"—is being in a place with this announcement. Although the reforms aim to improve the effectiveness of CG structure of listed firms and enhance the investors' confidence in the capital market in Turkey, the short-term economic consequences depend on the overall market evaluations regarding the expected benefits and costs of the new CG code. Thus, we formulate the following hypothesis:

Hypothesis 1 If the market participants evaluate the CG reforms as benefit-inducing (cost-imposing), there will be a significant positive (negative) market reaction.

According to Gompers et al. (2003) and Giroud and Mueller (2011) firms with strong (weak) corporate governance benefit from higher (lower) stock returns. Thus, the market reaction to a new regulation depends on the firm-level CG structure. Firms with a weak governance structure in the pre-regulation period are expected to make substantial restructuring to comply with the mandatory provisions, and consequently, they will bear significant compliance costs. In contrast, firms with a stable governance structure will have fewer compliance costs compared to others, as they wholly and/or partially comply with the new provisions in the pre-regulation period. Thus, the market reaction to the new regulation between firms with high-compliance (HC) and low-compliance (LC) with the mandatory CG provisions in the pre-regulation period are more likely to be different. If the benefit-inducing hypothesis is valid, ex-ante, we expect a positive market reaction for HC firms. Considering the nature of the reforms to improve good governance practices, ignoring firm-specific compliance, as it is argued by Jain and Rezaee (2006), we still expect a positive market reaction for LC firms. The mandatory provisions are positively associated with good CG practices, and this market externality aiming to improve investor confidence will provide higher benefits even for LC firms. However, as HC firms already comply with some of the provisions in the pre-regulation period, they will bear relatively

Table 9.3 Key reforms to improve corporate governance environment in Turkey

Date	Events	Description
16/06/2010	CMB made a press release about its initiative to revise the current CG code by the European Union	
13/01/2011	The New Commercial Code (CC) was accepted by the parliament	CG is the dominant concept in the new CC
14/02/2011	The New Commercial Code (CC) has been published in the Official Gazette	
11/10/2011	CMB released the Mandatory CG Regulation	The Communiqué Serial: IV, No:54 on the Determination and Implementation of Corporate Governance Code (Firms within the BIST30 index[a])
04/11/2011	CMB announced the draft for the revision of Mandatory CG Regulation	
30/12/2011	CMB extended the scope of firms that will apply the Mandatory CG Regulation	Communiqué Serial: IV, No: 56 on the Determination and Implementation of Corporate Governance Code (All firms listed on BIST excluding banks)[b]. Additional mandatory items were introduced
11/02/2012	CMB withdrew one of the major mandatory provisions introduced in the previous Communiqué	The Communiqué Amending the Communiqué Regarding Determination and Implementation of Code of Corporate Governance Serial: IV, No: 57
30/06/2012	Mandatory CG Regulation became effective	It is expected that the articles of the association and restructuring of the boards in compliance with the mandatory CG Regulation in their first general assembly, no later than 30 June 2012
01/07/2012	The new CC became effective	The new CC became effective excluding two groups of provisions; (i) the use of websites for information services and (ii) the use of ISAs and TASs
06/12/2012	The new CMB Law was accepted by the parliament	Investor protection is one of the major changes in the new CMB Law
30/12/2012	The new CMB Law has been published in the Official Gazette and became effective	
01/01/2013	The new regulation on auditing and financial reporting became effective	
03/01/2014	CMB has published the revised Mandatory CG Regulation in the Official Gazette, and it became effective	

[a]The index consists of 30 shares selected among the shares of companies traded on the National Market
[b]Banks listed on BIST will be subject to the provisions of the New Communiqué in the following year (30 December 2012)

lower compliance cost. Consequently, their benefit will be higher compared to LC firms. We, therefore, hypothesize that:

Hypothesis 1a Under the benefit-inducing (cost-imposing) hypothesis, the positive (negative) market reaction will be higher (lower) for HC (LC) firms.

On 11 October 2011, CMB released the first Communiqué regarding the new CG reform and clarified the content of the new CG regulation by issuing mandatory provisions. Furthermore, CMB announced the coverage and limited the coverage to firms within the BIST30 index (excluding banks). The announcement of the coverage and the content eliminated the ambiguity in the market. However, it commenced another discussion regarding the costs of compliance with binding rules, the effectiveness of enforcement mechanisms and the applicability of the mandatory provisions in the Turkish settings. Furthermore, on 30 December 2011, CMB extended the scope of the firms to all BIST firms and also increased the number of the mandatory provisions to be applied. In addition to those changes, in this revised version, BIST firms were classified into three categories based on their systematic importance, market value and the value of the free float shares: Tier 1, Tier 2 and Tier 3. Accordingly, firms are subject to different mandatory CG provisions depending on their tiers. Tier 1 firms are required to comply with all mandatory provisions. Tier 2 firms are exposed to greater mandatory provisions than Tier 3 firms. Independent from the market expectation regarding the benefits and costs of the new code, ex-ante, as firms included in the BIST30 index and Tier 1 and Tier 2 are subject to greater mandatory provisions, we expect the market reaction to be higher for those compared to ones not included in the BIST30 index and categorized in Tier 3. We, therefore, hypothesize that:

Hypothesis 2 Under the benefit-inducing (cost-imposing) hypothesis, the positive (negative) market reaction is higher (lower) for BIST30 (non-BIST30) and Tier 1 and Tier 2 (Tier 3) firms.

The international institutional investors have appreciated the new CG reforms, which eliminate the criticism regarding the CG norms in Turkey. However, the controlling shareholders showed a severe reaction to some of the provisions (Ararat and Yurtoglu 2012). Consequently, on 11 February 2012, following the arguments raised by the major shareholders and business associations, CMB retreated some of the mandatory provisions. Among all, the most critical change was the withdrawal of the requirement of the approval of the majority of the independent board members for related party transactions (see Table 9.2). With the retreatment, it is more likely to have a decrease in both (1) benefits to be driven from and (2) costs associated with the compliance of those mandatory provisions. In theory, if the market participants expect that the decrease in the induced benefits (imposed compliance costs) is more significant than the imposed compliance costs (induced benefits), there is a negative market reaction (a positive market reaction). The reason for the negative (positive) market reaction is because of the possible disappointment (appreciation) of the market participants regarding the withdrawal of mandatory provisions. We, therefore, hypothesize that:

Hypothesis 3 Under the benefit-inducing (cost-imposing) hypothesis, there will be a negative (positive) market reaction to the withdrawal of mandatory provisions.

9.4.2 Expected Long-Term Value Implications—Post-reform Period

The association between corporate governance and firm value depends on the effectiveness of firm-level CG mechanisms. Gompers et al. (2003) argue that firms with strong corporate governance benefit from higher firm value, profits, sales growth and lower capital expenditures. Similarly, Giroud and Mueller (2011) support their findings and document that strong corporate governance is associated with higher operating performance, and firm value due to lower agency cost leading to higher labour productivity, lower input costs and value-destroying acquisitions, particularly in non-competitive industries.

Ugur and Ararat (2006) examine the impact of the Turkish CG reforms initiated in 2002 on the macroeconomic performance by focusing on the change of (1) the effectiveness of regulatory authorities; (2) disclosure and transparency rules; and (2) the quality of the enforcement regime. Using the data regarding the earliest CG reforms in Turkey between the years 2002 and 2006, they find that new reforms enhance macroeconomic stability. In a recent study in Turkey, Ararat et al. (2016) find that firms with high-quality CG have high firm-level profitability. Additionally, they document that Turkish firms' CG improved by 32% from 2011 to 2012.[5]

The new CG code is a significant step regarding enhancing the attraction of institutional investors, and the new CG code is expected to contribute to the long-run macroeconomic performance of Turkey (Ararat and Yurtoglu 2012). Thus, because of the enhanced good practices of corporate governance in Turkey, ex-ante, in the post-regulation period, we expect an increase in the firm value. Furthermore, as Tier 1 and Tier 2 are exposed to relatively more mandatory provisions, we expect the increased substantial value to be higher for those firms. Additionally, as HC firms already complied with some of the provisions, we expect the increased substantial value to be higher for HC firms. Thus, we formulate the following hypotheses:

Hypothesis 4 In the post-regulation period, there is an increase in the firm value.

Hypothesis 4a In the post-regulation period, the increase in the firm value is higher for Tier 1 and Tier 2 and HC firms.

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[5] In their study, they did not specifically examine the impact of the new CG code on firm value.

9.5 Research Design

9.5.1 Sample and Data Collection

The study uses data from all non-financial firms listed in Turkey (in the BIST) for the period from a fiscal year before the first event date (16 June 2010) to three years after (the end of 2011, the beginning of 2012).

We started our sample construction with the determination of the non-financial listed firms available on the Public Disclosure Platform (PDP). We use firms' annual reports and corporate governance compliance reports available on the Public Disclosure Platform to hand-collect information on the board structure and ownership. If the information is not available on the Public Disclosure Platform, we examine the websites of corporations and other web sources to collect firms' board and ownership information. Furthermore, we collect financial accounting and stock return data from the Worldscope and Datastream databases, respectively. All variables and data sources are presented in the Table 9.4.

Our initial sample covers 1526 firm-year observations. Further, we eliminate from our sample firms with missing board structure data (188 firm-years), missing ownership data (35 firm-years) and firm-specific controls (183). After excluding firm-years with missing observations and winsorizing all of our financial variables at the 1 and 99% levels to control extreme outliers, the final sample comprises of 1120 firm-year observations.

9.6 Research Methodology

Event Study: To examine the short-term effect of the new CG code on the firm value, we use an event study methodology. In the estimation of announcement returns (ARs), as the event dates are same for all firms, we perform calendar event time-series regressions for the returns of equally weighted portfolios of listed firms proposed by Jaffe (1974) and Mandelker (1974). This approach is preferred over the estimation from pooled cross-sectional time-series regressions because residuals from a regression of pooled cross-sectional time-series stock returns have contemporaneous cross-correlation (Eckbo et al. 2016). We perform two estimation methods over several portfolios of our sample firms to calculate abnormal returns with the following regression models:

$$R_t^p = c + AR_e D_e + \varepsilon_t \tag{9.1}$$

$$R_t^p = c + AR_e D_e + \beta_1 EM_t^p + EM_{t-1}^p + \varepsilon_t \tag{9.2}$$

R_t^p is daily equally weighted US dollar returns of a portfolio containing the sample firms. D_e is the dummy for the event and previous day (−1, 0), and two days ARs

Table 9.4 Variable definitions, measures and data sources

Variable	Measure	Source of Data
Announcement returns (AR)	We perform calendar event time-series regressions for the returns of equally weighted portfolios of listed firms by using Eqs. (1) and (2)	Datastream
Tobin's Q	The ratio of book value of total assets minus the book value of equity plus the market value of equity to book value of total asset	Datastream
High-compliance (HC) Dummy[a, b]	Binary variable, which is equal to 1 for high-compliance firms with the mandatory provisions regarding board of directors before 2012, 0 otherwise	Hand-collected[c]
Bist30 Dummy	Binary variable, which is equal to 1 if the firm is in the BIST-30 index, 0 otherwise	Hand-collected[c]
Tier 1 and Tier 2 Dummy	Binary variable, which is equal to 1 if the firm is categorized as Tier 1 and Tier 2 by the CMB, 0 otherwise	Hand-collected[c]
Post 2012 Dummy	Binary variable, which is equal to 1 for the years 2012 and after, 0 otherwise	–
Financial Controls		
Size	The natural logarithm of book value of assets	Datastream
Market Leverage	The ratio of sum of book value of total long- and short-term debt to sum of book value of total long- and short-term debt and market value of common equity	Datastream
Return on Asset	The ratio of EBIT (Earnings before Interest and Taxes) to book value of total assets	Datastream
Capital Expenditures	The ratio of capital expenditures to book value of total assets	Datastream
Dividend per Share	The total dividends, including extra dividends, per share, declared during the fiscal year	Datastream
Ownership Controls		
Largest Owner	The percentage of the shares held by the largest shareholder	Hand-collected[c]
Foreign Ownership	A binary variable which is equal to 1 if the firm has a foreign owner, 0 otherwise	Hand-collected[c]
Holding Owner	A binary variable which is equal to 1 if the firm shares are owned by a holding firm, 0 otherwise	Hand-collected[c]
Family Owned	A binary variable which is equal to 1 if the firm shares are owned by a family owner, 0 otherwise	Hand-collected[c]

(continued)

Table 9.4 (continued)

Variable	Measure	Source of Data
Board of Directors' Controls		
Board Size	The total number of the board members	Hand-collected[c]
Board Independence	The proportion of the independent board members to the total number of board members	Hand-collected[c]
CEO Duality	A binary variable which is equal to 1 if the CEO is also the chairman of the board of directors	Hand-collected[c]

[a]We used five items in the determination of the compliance level. We use the median Board Structure Compliance level to create a high-compliance dummy for each sample year. All items were coded based on the hand-collected board structure data
[b]We collect the data from CMB monthly bulletins and annual reports
[c]We collect the data from firms' Annual Reports, Corporate Governance Compliance Reports, Corporate Website and Public Disclosure Platform for each year

are calculated by multiplying the estimated coefficients of this dummy by 2. In the second regression, we control equally weighted daily contemporaneous and lagged returns on the MSCI Emerging Market Index in US dollar (EM_t^p).

The estimation period for each event is from 2 to 252 days before the event date. The second event date (11/10/2011) stays in the estimation period of third event date (30/12/2011), which is also an estimation period of the last event date (11/02/2012). Therefore, we include dummies over two dates for earlier events in the estimation periods of the third and the last events to control the effects of these earlier events on the estimations of normal returns. Moreover, the estimation periods do not include any potential confounding events reviewed through a detailed search of macro-level (political and economic) and micro-level announcements through CMB, BIST, Public Disclosure Platform, Lexis Nexis databases and Google news.

We examine differences in announcement returns across firms by creating three subgroups: (1) HC, (2) BIST30 and (3) Tier 1 and Tier 2.

The first subgroup, *HC*, is based on the compliance with the mandatory provisions brought by the new CG code for the board structure before 2012.[6] Following Ararat et al. (2016), we refer to the size and independence of the board of directors and the existence of corporate governance committees to determine firms' level of compliance with the board structure. In the new CG code regarding the structure of the board of directors, the following mandatory provisions are given more importance (CMB 2011b):

(1) the board size shall not be less than five,
(2) the number of independent board members shall not be less than one-third of the total number of board of directors,
(3) in any case, the number of an independent board member shall not be less than two,

[6]In the short-term analysis, we used 2010, and in the lengthy run analysis, we use 2011 to determine the compliance level.

(4) all members of the audit committee shall comprise of the independent members of the board of directors,
(5) board of directors shall form an "audit committee", "early detection of risk committee", "corporate governance committee", "nomination committee" and "compensation committee", and
(6) however, in the case that a separate nomination and compensation committees cannot be established due to the structure of the board of directors, corporate governance committee shall fulfil the duties of such committees. We create a Board Structure Compliance Score by using factor analysis, in line with Ararat et al. (2016).

The summary statistics of each item and Board Structure Compliance Score are presented in the Table 9.5. We use the median value of Board Structure Compliance Score to differentiate HC and LC firms.

The second subgroup, *BIST30*, is based on the inclusion of firms in the BIST30 index or not, which is the crucial classification brought by the second event (11 October 2011).

The third subgroup, *Tier 1* and Tier 2, is for three categories of BIST firms, which are the classification introduced in the crucial third event (12 December 2011). Tier 1 firms are BIST firms with a market value exceeding 3000 million Turkish Liras and free float value exceeding 750 million Turkish Liras. Tier 2 firms are the ones with a market value exceeding 1000 million Turkish Liras and free float value exceeding 250 million Turkish Liras. Tier 3 firms are all other BIST firms which do not fall under Tier 1 and Tier 2, and those traded on the Emerging Firms Market and Watch-list Firms Market. In this classification, we separated firms as being in Tier 1 and Tier 2[7] and Tier 3.

We perform univariate mean and median comparison analysis, to test differences in ARs across subgroups,

The Pre-Post Analysis: We employ a pre-post analysis to examine the impact of mandatory CG provisions on the long-term firm performance during the post-regulation period. We use the following equation:

$$\begin{aligned}\text{Tobin's } Q_{it} = {} & \alpha + \beta_1 \text{ Group Dummy}_i + \beta_2 \text{ Post } 2012_t \\ & + \beta_3 \text{ Post } 2012_t * \text{Group Dummy}_i \\ & + \sum \beta_i \text{ Financial controls}_{it} + \sum \beta_i \text{ Board controls}_{it} \\ & + \sum \beta_i \text{ Ownership controls}_{it} + \text{ Industry fixed effects} + \varepsilon_{it} \quad (9.3)\end{aligned}$$

where *Tobin's Q* is a proxy for the firm value. *Tobin's Q* is the ratio of book value of total assets minus the book value of equity plus the market value of equity to book value of the total asset. *Post 2012* is a dummy variable with a value of 1 for years

[7]Due to the limited number of firms in Tier 1 and Tier 2, we combined these two groups. Tier 1 firms are required to implement all mandatory provisions, while Tier 2 firms are exempt from the specific provision. In all cases, the binding provisions are relatively higher than Tier 3 firms.

Table 9.5 Determination of the corporate governance compliance and measurement of the board structure score

Panel A: Descriptive statistics		N	Mean	Std. Dev.	Min.	Max.
Item 1	Firm has at least five board members	1433	.916	.277	0	1
Item 2	Firm has at least two independent board members	1433	.557	.497	0	1
Item 3	Firm has independent members more than one-third of the board of directors[a]	1433	.542	.498	0	1
Item 4	Audit Committee has at least two independent members	1338	.538	.499	0	1
Item 5	Corporate governance and Early Detection of Risk committees exist[b]	1433	.572	.495	0	1
	Board Structure Compliance Score[c]	1338	.000	.989	−1.206	.893

[a]This criteria shall not be applied for Tier 3 firms. We corrected the measure for all Tier 3 firms

[b]If the structure of the board of directors is not suitable, firms are allowed not to have a separate nomination and compensation committees. In such cases, corporate governance committee shall fulfill the duties of such committees. Thus, we exclude this item in the determination of the Board Structure Compliance Score

[c]It is a summary measure of the five board structure items described above using the factor weightings from a factor analysis. We find that the factor analysis loads on a single factor (using an eigenvalue above 1.0 as factor-loading threshold). The factor loadings are .344 for item 1, .986 for item 2, .968 for item 3, .945 for item 4 and .657 for item 5

Panel B: Correlations	Item 1	Item 2	Item 3	Item 4	Item 5
Firm has at least five board members (Item 1)	1				
Firm has at least two independent board members (Item 2)	.333***	1			
Firm has independent members more than one-third of the board of directors (Item 3)	.323***	.969***	1		
Audit Committee has at least two independent members (Item 4)	.309***	.941***	.917***	1	
Corporate governance and Early Detection of Risk committees exist (Item 5)	.277***	.638***	.615***	.624***	1

***$p < .01$

2012, 2013 and 2014, is 0, otherwise. Our variables of interests are *Post 2012* and the interaction term *Post 2012 * Group Dummy*, where *Group* captures (1) HC firms and (2) firms in Tier 1 and Tier 2.[8]

In all models, we use *Size, Market Leverage, Return on Assets, Capital Expenditures, Dividend per Share* as financial controls. Furthermore, considering the ownership structure of Turkish firms, we use *Largest Owner, Foreign Ownership, Holding Ownership* and *Family Ownership* as ownership controls. Finally, we use *Board Size, Board Independence* and *CEO Duality* to control the effect of the board structure on firm value. All variables are defined in Table 9.4. We use ordinary least square regression (OLS) analysis with robust standard errors clustered at the firm level. We run separate regressions for each subgroup.

9.7 Results

9.7.1 Summary Statistics

Table 9.6 presents the summary statistics for all variables used in our analysis for the full sample in Panel A and means and median values for the decomposed samples by subgroups in Panel B. The mean value of Tobin's Q for the full sample is 1.5. Regarding ownership structure, on average, the largest shareholders hold 48% of the shares, which is in line with previous studies in Turkey. In our sample, 21 of firms have a foreign shareholder, a holding company owns 40% of the firms holding company owns 40% of firms, and 82% of firms have family ownership. The average firm in the study has seven members on the board. On average, the board independence is 17%, and in 17% of the firms, the CEO held the chairman position as well.

Panel B of Table 9.6 reports the mean and median of firm/year observations for different subgroups. In the decomposed sample, HC firms are larger and have higher leverage, profitability, capital investment, dividend payments and lower Tobin's Q compared to LC firms. The percentage of shareholding by the most significant owner is relatively lower in HC firms. Furthermore, in HC firms, the affiliation with a holding, family and foreign owner is higher than LC firms. Regarding the governance, HC firms have relatively larger boards, higher board independence and less CEO duality.

[8] In the earlier version of the paper, we test firms in the BIST30 index. As the new CG code firms in the BIST30 index and Tier 1 and Tier 2 were in 2011, in the long-term analysis we classified the groups only by referring to tier classifications. This is because of the use of yearly research design in the long-term analysis, and the CG regulation for BIST30 and tier categorization we both issued in 2011. A significant number of BIST30 firms are already categorized under Tier1 and Tier 2.

Table 9.6 Summary statistics

Panel A: Statistics for full sample				
	Mean	Std. Dev	Min.	Max.
Tobin's Q	1.506	1.073	.412	6.948
Financial Controls		1.656	8.151	17.277
Size	12.620	.231	.000	.938
Market Leverage	.256	.086	−.364	.365
Return on Assets	.033	.055	.000	.358
Capital Expenditures	.047	.958	.000	16.420
Dividend Per Share	.254			
Ownership Controls				
Largest Owner	.489	.226	.031	.995
Foreign Ownership	.219	.414	.000	1.000
Holding Owner	.403	.491	.000	1.000
Family Owned	.826	.379	.000	1.000
Board of Directors' Controls				
Board Size	6.798	2.043	3.000	15.000
Board Independence	.172	.165	.000	.714
CEO Duality	.173	.379	.000	1.000

(continued)

Table 9.6 (continued)

Panel B: Statistics by groups

Variables	High-Compliance ($N = 369$)		Low-Compliance ($N = 751$)		Bist30 ($N = 66$)		Non-Bist30 ($N = 1054$)		Tier 1 and Tier 2 ($N = 138$)		Tier3 ($N = 982$)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Tobin's Q	1.430	.910	1.543	1.144	1.286	.347	1.520	1.102	1.666	1.021	1.483	1.079
Financial Controls												
Size	13.455	1.685	12.210	1.480	15.611	.912	12.433	1.506	15.357	.945	12.236	1.343
Market Leverage	.275	.234	.247	.230	.334	.160	.252	.234	.218	.166	.262	.239
Return on Assets	.043	.077	.028	.090	.051	.048	.032	.088	.085	.069	.025	.086
Capital Expenditures	.050	.057	.045	.054	.044	.030	.047	.056	.068	.055	.044	.054
Dividend Per Share	.415	1.396	.175	.627	.453	.839	.242	.964	.558	.947	.211	.952
Ownership Controls												
Largest Owner	.482	.208	.492	.234	.494	.102	.488	.232	.481	.152	.490	.234
Foreign Ownership	.228	.420	.214	.411	.273	.449	.215	.411	.348	.478	.201	.401
Holding Owner	.482	.500	.364	.481	.727	.449	.382	.486	.478	.501	.392	.488
Family Owned	.873	.334	.803	.398	.727	.449	.832	.374	.783	.414	.832	.374
Board Controls												
Board Size	7.661	1.994	6.374	1.931	8.848	1.915	6.670	1.982	8.688	2.298	6.533	1.857
Board Independence	.203	.164	.156	.164	.191	.156	.171	.166	.168	.160	.172	.166
CEO Duality	.108	.311	.205	.404	.030	.173	.182	.386	.101	.235	.189	.392

Definitions of all variables are given in Table 9.4

Table 9.7 Correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12
1. TobinQ	1											
2. Size	−.135***	1										
3. Market Leverage	−.277***	.110***	1									
4. Return on Assets	.161***	.346***	−.217***	1								
5. Capital Expenditures	. .078***	.244***	.047	.176***	1							
6. Dividend Per Share	.203***	.134***	−.165***	.263***	.023	1						
7. Largest Owner	.154***	.217***	−.140***	.089***	.013	.080***	1					
8. Foreign Ownership	.199***	.159***	-.158***	.169***	.042	.163***	.095***	1				
9. Holding Owner	−.133***	.223***	-.051	.039	−.05	.036	.082***	.085***	1			
10. Family Owned	−.075***	−.089***	.061	−.126***	−.023	.051	−.183***	−.076	.199***	1		
11. Board Size	−.032	.531***	−.079***	.187***	.154***	.233***	−.013	.130***	.170***	.095***	1	
12. Board Independence	.015	.059	.095***	-.058	.037	.011	.017	-.002	.005	.013	.085***	1
13. CEO Duality	.040	−.218***	.099***	−.101***	−.017	−.072	−.147*	−.002	−.149***	−.013	−.202***	−.017

***$p < .01$
Definitions of all variables are given in Table 9.4

Table 9.7 reports the correlation matrix. There is no primary concern about possible high correlations between pairs of variables, except the correlation coefficient between board size and firm size, and between holding ownership and size.[9]

9.7.2 Short-Term Value Implications

Table 9.8 presents short-term market reactions to the announcements of different events during the process of setting the mandatory CG regulations for the full sample and subgroups. Panel A and Panel B report the results using the mean-adjusted model and MSCI index-adjusted model (Eqs. 1 and 2), respectively.

Overall results for the full sample show that only two of the four events produce statistically significant *ARs*; the *first announcement* of the revision, 16 June 2010 event and *the withdrawal* of the mandatory provisions, 11 February 2012 event. The latter, though, is statistically insignificant when using the mean-adjusted model in ARs computations.

The *ARs* in response to 16 June 2010 event is positive and significant ($\mu = .006$, $p = .10$) for the full sample, supporting the benefit-inducing hypothesis proposed in Hypothesis 1. The immediate reaction of the market to the first-time announcement of the CG reforms is affirmative, indicating that the market expects BIST firms to benefit from new CG code.

Furthermore, the market reaction to the *first announcement* of the revision is more significant for HC firms ($\mu = .007$, $p = .01$), and it is still positive but insignificant for LC firms. The results imply that as HC firms have lower compliance costs and market participants expect that the induced benefits outweigh the imposed compliance costs. However, the difference between the two groups is insignificant. Thus, we find weaker support for Hypothesis 1a.

The overall market reaction to the events on 10 October 2011 and 30 December 30 2011 is insignificant. Moreover, we did not find any significant market reaction to BIST30 and Tier 1 and Tier 2 groups. Thus, we do not find significant support for our Hypothesis 2.

Finally, the market reaction in response to the event on 11 February 2012 is positive and significant ($\mu = .014$, $p = .05$) for the full sample, and it is higher for HC firms ($\mu = .015$, $p = .10$). The results support the cost-imposing hypothesis and indicate that the decrease in the imposed compliance costs is higher than the decline in the induced benefits, in line with our Hypothesis 3. Furthermore, the positive market reaction is more significant for HC firms, indicating that market participants recognize some of the mandatory provisions as additional costs rather than a value-added procedure for firms. Notably, market participants appreciate the withdrawal,

[9]We run our regressions (untabulated) with and without ownership and governance variables to control possibility that such correlation affects our main findings. Our primary results are qualitatively similar.

Table 9.8 Short-term market reactions to the announcements of events

	Panel A: Mean-adjusted model				Panel B: MSCI index-adjusted model			
	$R_t^p = c + AR_e D_e + \varepsilon_t$				$R_t^p = c + AR_e D_e + \beta_1 EM_t^p + EM_{t-1}^p + \varepsilon_t$			
16/06/2010	All	High-Compliance	Low-Compliance	Difference	All	High-Compliance	Low-Compliance	Difference
$2 \times AR_e$	.007**	.009***	.003	.006	.006*	.007***	.002	.006
Std. Error	(.002)	(.001)	(.004)	(.003)	(.002)	(.002)	(.003)	(.003)
11/10/2011	All	BIST30	Non-BIST30	Difference	All	BIST30	Non-BIST30	Difference
$2 \times AR_e$	.015	.014	.015	−.001	−.009	−.010	−.009	−.001
Std. Error	(.007)	(.007)	(.007)	(.000)	(.006)	(.006)	(.006)	(.001)
30/12/2011	All	Tier 1 and Tier 2	Tier 3	Difference	All	Tier 1 and Tier 2	Tier 3	Difference
$2 \times AR_e$	.014*	.009*	.015	-.006	.000	−.004	.001	−.005
Std. Error	(.004)	(.003)	(.005)	(.003)	(.004)	(.003)	(.005)	(.004)
11/02/2012	All	High-Compliance	Low-Compliance	Difference	All	High-Compliance	Low-Compliance	Difference
$2 \times AR_e$	.013	.015	.009	.006	.014**	.015*	.010**	.005
Std. error	(.006)	(.007)	(.006)	(.003)	(.004)	(.004)	(.002)	(.003)

***$p < .01$; **$p < .05$; *$p < .1$

Standard errors are presented in parentheses. *AR*, Announcement Returns measured by calendar event time-series regressions for the returns of equally weighted portfolios of listed firms by using Eqs. (1) and (2); *High-compliance (HC)* is a binary variable which is equal to 1 for high-compliance firms with the mandatory provisions regarding board of directors' before 2012, 0 otherwise; *Bist30* is a binary variable which is equal to 1 if the firm is in the BIST-30 index, 0 otherwise; *Tier 1 and Tier 2* is a binary variable which is equal to 1 if the firm is categorized as Tier 1 and 2 by the CMB, 0 otherwise

because of the elimination of such additional costs, particularly for firms with a suitable governance structure.

9.7.3 Long-Term Value Implications—Post-reform Period

Table 9.9 presents the estimated regression coefficients in the post-regulation period for Eq. (9.3) using different sub-samples. In Table 9.9, Panel A, Model 1, the coefficient of *Post 2012* is negative and insignificant suggesting that in the post-regulation period, there is no significant change in Tobins'Q of BIST firms. Thus, we reject our Hypothesis 4. Furthermore, in Table 9.9, Panel B, Model 2, the coefficient of *Post 2012* $\times$ *High-Compliance (Post 2012* $\times$ *HC) is* positive and significant ($\beta = .276, p = .05$), suggesting that HC firms have higher Tobins'Q in the post-regulation period. Finally, in Table 9.9, Panel C, Model 2, the coefficient of *Post 2012* $\times$ *Tier 1 and Tier 2 (Post 2012* $\times$ *Tier 1 and Tier 2)* is positive and significant ($\beta = .487, p = .05$), indicating that Tier 1 and Tier 2 firms have higher Tobins'Q in the post-regulation period. In line with our argument in Hypothesis 4a, the results show that firms with a high level of compliance and expose to a greater level of mandatory provisions benefit more in the post-regulation period. Regarding financial controls, while firm size, in contrast to expectations, and market leverage has a negative effect on Tobin's Q in these columns, return on assets, capital expenditures and dividend per share have significant positive coefficients. None of the board controls have significant coefficients. About ownership controls, the estimated coefficients of all ownership variables, except for the family ownership, are statistically significant. The variables Largest Owner and Foreign Ownership have an increasing impact and Holding Ownership has a decreasing impact on the firm value.

9.8 Robustness

9.8.1 Market-to-Book Ratio as Dependent Variable

We use market-to-book ratio to test the sensitivity of our findings to the use of Tobin's Q as a proxy for the firm value. Ararat et al. (2015) indicate that, in Turkey, market-to-book ratio is more likely to be a better proxy than Tobin's Q due to the inflationary economic tendencies, which distort the replacement costs of total assets and the market value of total liabilities. Table 9.10, Panel A, reports the regression results with market-to-book ratio as the dependent variable. The coefficient of *Post 2012* is still insignificant. Additionally, the estimated coefficients of *Post 2012* $\times$ *HC* and *Post 2012* $\times$ *Tier 1 and Tier 2* are positive and significant (Model 3: $\beta = .638$, $p = .05$; Model 5: $\beta = .487, p = .05$) in line with our results presented in Table 9.9.

Table 9.9 Changes in Tobin's Q during the post-regulation period

Dependent Variable: Tobin's Q	Panel A Post 2012	Panel B High-Compliance versus Low-Compliance		Panel C Tier 1 and Tier 2 versus Tier 3	
	Model 1	Model 1	Model 2	Model 1	Model 2
Constant	3.113***	3.210***	3.254***	4.274***	4.334***
	(.704)	(.723)	(.725)	(1.523)	(1.530)
Post 2012	−.023	.000	−.135	.324	.263
	(.107)	(.106)	(.149)	(.284)	(.289)
High-compliance (HC)		.084	−.066		
		(.117)	(.119)		
Post 2012 x HC			.276**		
			(.120)		
Tier 1 and Tier 2				1.115**	.880*
				(.523)	(.525)
Post 2012 x Tier 1 and Tier 2					.487**
					(.214)
Size	−.169**	−.177***	−.179***	−.269**	−.274**
	(.066)	(.067)	(.067)	(.133)	(.133)
Market Leverage	−.792**	−.796**	−.798**	−1.406**	−1.384**
	(.388)	(.390)	(.390)	(.562)	(.564)
Return on Assets	1.655*	1.682*	1.730*	2.958*	3.005**
	(.877)	(.883)	(.883)	(1.509)	(1.513)
Capital Expenditures	1.997***	2.004***	2.000***	3.589**	3.555**
	(.673)	(.677)	(.682)	(1.569)	(1.566)
Dividend Per Share	.144***	.140***	.138***	.166	.166
	(.043)	(.044)	(.044)	(.102)	(.101)
Largest Owner	.735*	.745**	.746**	1.503**	1.520**
	(.380)	(.377)	(.377)	(.721)	(.722)
Foreign Ownership	.362**	.367**	.360**	.850**	.841**
	(.181)	(.181)	(.182)	(.382)	(.383)
Holding Ownership	−.279**	−.279**	−.279**	−.476*	−.475*
	(.127)	(.127)	(.127)	(.263)	(.263)
Family Ownership	−.114	−.12	−.121	.14	.14
	(.223)	(.223)	(.223)	(.349)	(.348)

(continued)

Table 9.9 (continued)

Dependent Variable: Tobin's Q	Panel A Post 2012	Panel B High-Compliance versus Low-Compliance		Panel C Tier 1 and Tier 2 versus Tier 3	
	Model 1	Model 1	Model 2	Model 1	Model 2
Board Size	.005	.002	.005	.015	.016
	(.037)	(.037)	(.037)	(.073)	(.072)
Board Independence	.32	.25	.422	−.845	−.844
	(.423)	(.407)	(.457)	(1.106)	(1.114)
CEO Duality	.124	.126	.129	.258	.258
	(.176)	(.176)	(.176)	(.308)	(.307)
Adjusted R-sq	.232	.232	.235	.173	.173
Observations	1120	1120	1120	1120	1120
Industry	Yes	Yes	Yes	Yes	Yes

***$p < .01$; **$p < .05$; *$p < .1$
Standard errors are presented in parentheses. Definitions of all variables are given in Table 9.4

9.8.2 Coarsened Exact Matching Estimator

We perform coarsened exact matching (CEM) estimation method to test the robustness of our findings on the comparisons between the firms categorized in the Tier 1 and Tier 2 and the Tier 3. We used two variables to create similar groups; (i) the market capitalization as a proxy for the size, because Tier 1 and Tier 2 are mainly relatively large firms, and (ii) the market-to-book ratio as a proxy to capture the valuation of the equity compared to the book value. The idea of CEM is to create segments of the sample of the observations based on quartiles of these two variables. The number of total strata for the total sample is 19 and for the matched sample is 7, and both treatment and non-treatment observations appearing in those seven segments are kept to run the regressions, that is from strata that do not contain both treated and control observations are dropped from the sample. The total number of observations in matched segments is 403. Table 9.10, Panel B. Model 2 reports the results for the reduced sample with CEM estimation. The estimated coefficient of *Post 2012* × *Tier 1 and Tier 2* is positive and significant ($\beta = .396$, $p = .01$) in line with our results presented in Table 9.10, Panel C Model 2. This robust evidence confirms the fact that changes in the values of Tier 1 and Tier 2 firms compared to matched firms are significantly higher in the post-regulation period compared to the pre-regulation.

Table 9.10 Robustness tests

	Panel A: Changes in market-to-book ratios					Panel B: Coarsened exact matching	
	Dependent variable: Market-to-book					Dependent variable: Tobin's Q	
	Post 2012	High-Compliance versus Low-Compliance		Tier 1 and Tier 2 versus Tier 3		Tier 1 and Tier 2 versus Tier 3	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2
Constant	2.658**	2.876**	2.977**	4.274***	4.334***	13.807***	13.999***
	(1.319)	(1.331)	(1.328)	(1.523)	(1.530)	(2.616)	(2.637)
Post 2012	.296	.348	.036	.324	.263	.093	.062
	(.286)	(.275)	(.347)	(.284)	(.289)	(.174)	(.181)
High-compliance (HC)		.188	−.157				
		(.258)	(.247)				
Post 2012 × HC			.638**				
			(.266)				
Tier 1 and Tier 2				1.115**	.880*	1.014**	.827*
				(.523)	(.525)	(.437)	(.425)
Post 2012 × Tier 1 and Tier 2					.487**		.396***
					(.214)		(.149)
Financial Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ownership Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Governance Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-sq	.16	.16	.164	.173	.173	.561	.562
Observations	1120	1120	1120	1120	1120	403	403
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes

***$p < .01$; **$p < .05$; *$p < .1$
Standard errors are presented in parentheses. Definitions of all variables are given in Table 9.4

9.9 Discussion and Conclusion

We examine the short-term and long-term value implications of the transition from C/E to a partially mandatory CG regime on Turkish listed firms between the years 2009 and 2014. Overall, our paper contributes to the optimal CG regime debate by providing additional empirical results to the limited studies on the consequences of mandatory provisions in EM. First, we document that the initial market reaction to the announcement regarding the amendments to the CG code by the European Union is positive, suggesting that the market considers the induced benefit explanation over the imposed compliance costs. Our initial event study results are in line with the overall findings that the capital markets reaction to mandatory CG provisions is positive (Black and Khanna 2007; Black and Kim 2012; Jain and Rezaee 2006; Li et al. 2008). Furthermore, the positive market reaction is more significant for HC firms with the new CG code in the pre-regulation period, which is in line with our expectations and previous literature. Second, the market reaction to the amendments in the new CG code (10 February 2016)—the withdrawal of some of the mandatory provisions—is positive, and it is more significant for HC firms. The results indicate that market participants also evaluate the costs of mandatory provisions and stand for initiations resulting costs reduction. Third, our pre-post analysis' results suggest that in a long-term period, HC firms and Tier 1 and Tier 2 firms have a significant increase in Tobin's Q in the post-regulation period. Our long-term results are consistent with the CG literature arguing that firms with strong corporate governance benefit from the higher firm value (Gompers et al. 2003; Giroud and Mueller 2011) and firms expose a higher number of mandatory provisions have higher firm value.

Overall results suggest that the market participants initially appreciated the idea of revising the CG code of Turkey, which was not effectively implemented by the Turkish listed companies. However, the opaqueness about the content of the provisions, the coverage and scope of the new regulation creates uncertainties in the market which decremented the initiated expectations on the market and consequently, unlike the expectations, CMB could not enhance the investors' confidence. Thus, from 16 June 2010 to 10 February 2012, market participants, specifically international investors, reversed their expectations from the induced benefits towards more the imposed compliance cost, which lead a positive abnormal return of an unfavourable event. The results entail that over the period since the first announcement in 2010, there is a change in the expectations of the market participants from the new CG code. The content and the scope of the new CG code did not fully satisfy the expectations of the market participants. Our findings document that the market participants are emphasizing the induced benefits and the imposed compliance cost of the new CG code correspondingly.

Despite the expected benefits of the implementation of good CG practices, changing the CG regime is challenging due to the institutional settings of jurisdictions (Whitley 1999). Such a change may not be successful without coordination among other legislation and requires amendments to the law (Schmidt and Spindler 2002). In that term, Turkey experienced a successful transformation process to complement

the new CG code by the Commercial and Capital Markets laws together with other market mechanisms which strengthen the disclosure and public oversight environment. In the Turkish case, in the long-term period, the benefit of the mandatory CG will be more prominent when the enforcement mechanisms are strengthened through investors' monitor and the media attention. Mainly the Turkish experience of shifting towards a partially mandatory regime requires significant changes in the legislation and enforcement mechanisms to ensure the practical use of CG code.

This study has some limitations. First, due to the hand collection of the corporate governance data, studies focusing on comprehensive CG research in the Turkish setting, particularly in the post-regulation period, are limited. As this study is the first study conducted on the economic consequences of the CG reforms in the Turkish setting, the results are not comparable to any other study that examines Turkish firms. Second, as our research design is based on an exogenous shock, the new CG regulation, we use a single-country context. Due to the use of data from a single country, considering the impact of the institutional environment on the economic consequences of CG, our results may not be generalized to other EMs. However, our findings provide useful insights for other capital market regulators to understand possible impacts of a partially mandatory CG regime in an EM context.

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Chapter 10
Transparency of Content Analysis Report of Audit Companies in Turkey

Nil Dalgic and Kiymet Caliyurt

Abstract Since the importance and necessity of the audit concept is now clear, it is essential that all institutions and enterprises operating at national and international levels should be able to function effectively in their structures. So much so that the financial crises and corporate scandals in the past have brought the importance and necessity of the functioning of the audit to the forefront. In this regard, the Enron case is exemplified as the most popular financial crisis in the 2000s. Moreover, economic disasters such as Enron and corporate scandals have led to a demand for businesses, corporations and organizations to be transparent, along with the importance and necessity of the concept of control. Because events like Enron have reduced confidence in both the markets and the companies and the independent auditors. On top of this, it became necessary to ensure transparency of companies to prevent the financial crises and corporate scandals that may be experienced, to build confidence in financial markets and to increase confidence. It has become essential to ensure transparency of the quality and reliability of the independent auditing that provides reasonable assurance to the corporate environment, financial statement users and financial markets, as the financial statements of institutions may contain risks due to errors or faults. Therefore, the transparency of the audit firms operating independently and in good quality and thus the publication of the transparency report has dramatically increased its importance today.

Keywords Audit report · Transparency · Content analysis · Turkey

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10.1 Introduction

First, when we consider the concept of transparency, it is understood that the idea of openness has basic meanings such as transparency and openness. From the underlying definitions of the concept of clarity, it is seen that the institutions, enterprises and companies operating in the field of economics and economics today can be transparent and that these institutions, enterprises and companies are vital regarding market and country economy. Because of the financial crises of the past such as Parmalat, Enron, World Com and after the corporate scandals, the concept of transparency has increased its importance even further. Due to the growing importance of clarity, it has become necessary for the auditing companies, which undertake the supervision of the enterprises and the enterprises, to be transparent.

In this respect, it is of strategic importance that auditors ensure transparency and publish a transparency report to provide clarity. Hence, the Content Analysis of Transparency report of audit company in Turkey, our country be addressed to belong transparency reports 2016 Beech control that controls the company, the activities made by the company in question the reliability of the audit services they offer and trying to understand the quality and the structure they have created, the system and to assess the importance of the transparency report in increasing audit quality.

In the Transparency Report for 2016 analyzed for this purpose, if it is necessary to state the information about the audit companies themselves, legal structure and partnership, key managers and responsible auditors briefly, the legal and structural characteristics of the audit network involved, the nature of these relationships with related audit firms and other entities, organizational structure, quality assurance system reviews.

In this study, in addition to the information analyzed in the transparency reports published by the audit companies in the year 2016, the following topics were investigated: "Audit Case," "Independent Audit Concept," "Quality in Independent Audit," "European Union Legislation," "Transparency and Corporate Governance Relations" were examined in detail.

10.2 Auditing Concept

If the audit case is first evaluated in general terms, it is understood that the audit case has inscriptions such as inspection and observation. And, in the broadest sense, having an expression such as inspection, the comment is the inspection and supervision of the activities of the institution or organization. From this point of view, collecting, evaluating and evaluating the records related to the economic activities and events to determine and report the degree of conformity of the announced information about activities and facts of an organization with the predetermined criteria within the field of accounting, including the audit case and the supervision of the financial and non-financial activities of the institutions (Erol 2008, 232). It is understood from this

explanation that the risks arising from audit activities, economic activities and events related to past actions and businesses in the accounting field are essential and can be taken as an objective, proposed dynamic process that can remove risks and prevent future dangers and damages mechanism.

Thus, the control mechanism is closely related to accounting. In other words, economic activities constitute the primary objective of accounting and auditing, and the area concerned with the preparation of the information resulting from industrial activities is accounting; the mechanism related to the control of the accuracy of the prepared information is also an audit. Therefore, the reliability of the accounting system is ensured by the control mechanism. Therefore, auditing within the accounting system is highly effective and productive. Moreover, if it is necessary to look briefly at the historical development of the relationship with the accounting system of supervision, the first outcome of the guidance to the stage of history is based on the Mesopotamian civilization.

In this respect, it is understood that the audit first appeared as a process of verification of government activities and public accounts. And in the time that has passed day by day, the industrial revolution, in which an economic structure based on human power is transferred from a commercial arrangement to an economic structure dominated by machines, has contributed to the increase in demand for the demand. Because, with the industrial revolution, the factory system has been improved and large-scale production has been passed. Thus, the fields of activity of the enterprises have been expanded, and professional managers have been assigned instead of the managers who are in the management of these enterprises. This has led to an increase in demand for managerial departments, especially shareholders, who have moved away from business management.

The audit case in the direction of increasing demands is aimed at "implementing positive reforms for the supervised unit and preventing implementation differences between the supervised units" (Karahan 2017, 275). Auditing on these objectives provides reasonable assurance that the financial statements providing the information to the persons and organizations needing the data prepared by the enterprises are correct and reliable. Providing reasonable assurance that financial statements are accurate and reliable is essential for financial markets that combine funding needs and funding needs. Because unreliable financial information has an impact on the development of financial markets. Thus, securing the confidence in the markets depends on the availability of financial information and financial statements. As a result, auditing within the accounting system is an essential mechanism with a highly practical and useful position.

10.3 External Auditing Concept

The concept of independent auditing states that "the collection of evidence in an unbiased and systematic manner within the framework of the criteria set forth, the conclusion of the evaluation of the collected evidence, and the conclusion reached

are linked to the audit report" (Selimoglu and Göktepe 2007). In other words, independent auditing is the audit of financial statements to obtain an opinion on whether certain accounting standards prepare the financial statements of an entity and that it accurately and sincerely reflects the financial position of the entity (Ertan 2011, 6–7). Considering these statements, it is important to ensure that the financial statements prepared by the institution are accurate and reliable, that the risks arising from mistakes or faults that may arise in the financial statements are identified, that the company environment and financial statement users are trusted, financial decisions are made correctly for the market, institutional environment and information users, the independent auditor has a major commitment. On this importance of having independent control, Kandemir and Akbulut (2013) considered the features they carry as follows:

> The auditor has sufficient professional knowledge and experience; the auditor collects adequate evidence by using appropriate techniques and evaluates the evidence and ultimately controls the auditor. It presents a report that discloses the situation of the business entity in an impartial manner (p. 41).

These features include: "Independent auditing in light" is intended to ensure that businesses "maintain their accounting records in accordance with generally accepted accounting principles, to achieve a conclusion about financial statements, the emergence, and prevention of mistakes and mistakes, the protection of the rights of business owners and employees" (Ünal 2015, 17). It seems that the independent audit carried out in line with these aims provides considerable benefits to the business, the business environment, the financial statement users and the markets. Thus, if it is necessary to specify the benefits provided by independent audit firms, Kapusuzoğlu (2006) evaluated the following:

> A financial statement approved by the independent auditor; reliable, transparent and accurate financial statement. This gives the business manager the ability to make better decisions. When we look at the benefits to the partners, conducting the audit in a completely neutral manner and reporting it impartially ensures that the rights of all partners of the business, especially those not in management, are better protected. Businesses whose financial statements are audited by an independent auditor have significant benefits in evaluations of money and capital market institutions in which they are in a trading relationship because financial statements are audited by an independent auditor (64–65).

In sum, it is understood that independent audit has an active and useful role on business, business environment, markets and country economy when the characteristics it carries, its objectives and the benefits it provides are evaluated. Furthermore, there is always the possibility that the financial statements prepared by the entity may contain errors due to errors or faults. Independent auditing establishes trust in the marketplace, the business environment, and the market, by creating this mistake, thus contributing to the development of the economy.

10.4 Quality in Independent Auditing

Quality generally refers to a concept that can show the best characteristics a product or service has and can also provide satisfaction regarding the best features it can display. However, the comfort provided by a product or service can vary from person to person because of each person's expectations and expectations about a product or service, satisfaction is different. Therefore, when assessing the concept of quality, it must be considered that a product or service can maintain its characteristics at the highest level. From this point of view, when the concept of quality is evaluated in the independent audit, it is understood that the satisfaction rate provided to customer enterprises and the trust provided to the business environment, investors, decision makers and financial markets are essential. Thus, in the independent audit, quality refers to the existence of errors or frauds that can occur in the financial statements, the detection of suspicious accounting practices and the prohibition of such application, the disclosure of such situations in the audit report and the assurance that the financial statements do not contain material errors (Yasar 2013, 467).

In this context, the quality of the independent audit depends on compliance with the established standards and legal regulations related to the independent review within the audit process, and the correctness and reliability of the verdict reached at the end of the audit process. This is because the level of confidence and the quality of the independent audit that is made by the legal regulations will be increased (Oktay 2013, 48). At the same time, a high-quality independent audit service "ensures that the independent audit firm is reliable and maintains its reputation in the market, increases its competitive power, and its capital market is successful" (Alpaslan and Hakesever 2013, 50–51). In this respect, auditors for quality auditing services are required to have professional care and rigor, independence, vocational training and qualification criteria within the framework of GAAP issued by the American Institute of Certified Accountants (AICPA) and carry out audits in the knowledge of these criteria. In other words, it is essential for audit firms and their employees to be expert, rigorous, honest, attentive, open, objective, impartial, independent in their audit work and to adopt the audit profession by taking the supervisory business for the quality of the independent audit to be high. As a result, quality elements are sought in the independent audit profession as well as in all occupations. And for the customer, public opinion, regulatory authorities, this profession must be maintained in sound quality.

10.5 Transparency in Auditing

Nowadays, when the concept of transparency is considered, it is understood that both institutions are a fundamental phenomenon that should be in their structures and that they are a concept required by the circles of interests of the institutions. In this way, every sector is predominant in transparency in the strategies that it develops about

its profession. Because an institution with openness is increasing its quality level and maintaining its sustainability in the market with its increasing quality level. In this context, as in all professions, transparency in the independent audit profession also plays a vital role in the reliability, quality and sustainability of the business. It is important to note that the correctness and reliability of auditing firms that undertake to audit of the accuracy and reliability of the financial statements of an entity is of crucial importance for the correctness and security of the financial statements of the client's business, for the benefit circles, investors, markets, it is essential at the same time. Thus, the financial information of the enterprises and the auditing companies undertaking the auditing of their financial statements must be open to the public about the activities performed by the auditors. On top of that, it is of strategic importance to ensure transparency to demonstrate to the public, the government and the government that the independent audit carried out by audit companies is of good quality and reliable. At this point, transparency in the independent verification can be easily understood regarding timely, accurate, complete, easily understandable, low-cost, "financial and non-financial information about the company," except for the information of the commercial companies (Demirkan and Polat 2016, 3).

In this direction, opinions of financial and non-financial information of independent audit companies are disclosed to the public and their economic status regarding the activities they conduct, the enterprises they audit, partnership structures and quality control systems. Furthermore, transparency in independent auditing allows companies to assess the situations and positions they have in place by demonstrating the degree of confidence and quality of the activities and audits performed by audit firms. In other words, transparency allows companies to monitor and evaluate their actions. At the same time, auditing firms that provide clarity protect the reputation and quality of the financial and non-financial information against timely, accurate and complete disclosures to the public. The protection of status and quality against negativities is significant for a company to survive its existence and to be able to bring itself to the future. Within this context, the role of transparency in independent auditing is better understood.

10.6 Transparency Report

The transparency report states that independent auditing institutions that meet certain conditions according to the country's legislation are required to ensure that the audits they undertake to ensure the transparency of their activities, the incomes they earn, the auditors, partnerships (Demirkan 2016, 46). Accordingly, auditing companies must disclose their financial and non-financial information on time, accurately and completely to the public. In this direction, audit companies prepare a transparency report every year to disclose their activities to the public. Thus, audit companies have benefited from the transparency report they have prepared, customer business, investors, decision makers, markets, transparency report on the public information about their activities. So much so that the transparency report gives the people who

are assigned to choose an audit firm or the governing bodies the ability to obtain the information they need. The transparency report helps audit firms to examine their self and to strengthen the discipline they create within themselves and to give more importance to the quality of audits' (Gürol and Tüysüzoglu 2017, 190–191). In this context, the transparency report enhances the quality level of both the audit companies and the audits carried out and ensured that the auditing companies take care to increase the audit quality.

Audit companies that pay attention to the quality of audit vary among their competitors. Audit companies, which differ between firms, have a critical position in providing reasonable assurance to the investors, shareholders, decision makers and the marketplace about the correctness and reliability of the reports on customer operations. Transparency reports, therefore, play an active role in the interests circles of audit firms. This role of the transparency report appears to be the foreground of the Independent Audit Regulation published by the Public Companies Accounting Oversight Board of Turkey (KGK)[1] When we look at the regulations on transparency in our country. Because the auditors of the 36th Article of the Regulation have the auditing institutions that have audited KAYİK.[2] Auditors who have finalised auditing for a calendar year should publish their reports 20 days before the general shareholders' meeting (Kaya 2017, 47). In addition to paragraph 1 of Article 36 of the Regulation on Transparency Report, paragraph 2 describes the information that should be included in the transparency report. This information, the Tanç and Gümrah (2016), states:

> *Legal structure and partnership; Key managers and responsible auditors; Legal and structural characteristics of the audited network; The nature of these relationships with related auditing entities and other entities; Organization structure; Quality assurance system reviews; KAYIK[3]s provided with audit service; Continuing education policy; Adaptation to the principle of independence; Distribution of income; Pricing principles of responsible auditors; Quality control system (425–427).*

As the information to be included in the transparency report should be listed above, the transparency report prepared by the audit companies needs to disclose this information in a timely, accurate, complete and understandable manner. In this framework, the transparency report informs the public that the audit company reflects transparency. The transparency report thus becomes a strategic element of trust and quality, reflecting the openness of the activities undertaken by audit firms.

[1] http://www.kgk.gov.tr/Home.

[2] Organizations interested in the public interest (KAYIK):

Public companies, banks, insurance, reinsurance and pension companies, factoring companies, financing companies, financial leasing companies, asset management companies, pension funds

–With the issuers and capital market institutions defined in the Capital Markets Law dated 6/12/2012 and numbered 6362 the institutions evaluated by the Authority in this context as they are significantly related to the public according to their activity areas, transaction volumes, number of employees employed and similar measures.

[3] Organizations interested in the public interest (KAYIK):

Public companies, banks, insurance, reinsurance and pension companies, factoring companies, financing companies, financial leasing companies, asset management companies, pension funds.

10.7 European Union Legislation

European Union legislation is significant regarding harmonization by removing the differences in accounting and supervision among the member countries. Regulations and law created in the name of transparency can be changed according to the nations when the rules and legislation countries in the world of accounting and auditing are taken into consideration. In this regard, the EU seeks to establish a common point in the pursuit of harmonization and solidarity between the systems of member states within the policies it follows. And the EU is working on developing regulations in the name of directives, to provide standard implementations to member countries in accounting and auditing. In this respect, the 8th Directive 84/253/EEC, the Revelation 272 8/2006/43/EC, the Directive 2014/56/EU and the regulation 537/2014 has been published in the framework of EU. And from the directives issued in the context of the EU legislation, the 8th directive sets out the principles for the persons to carry out the legal supervision of the accounting activities of the enterprises (Parlakkaya 2004, 127).

On the other hand, the 8th Directive aims at "*ensuring that qualified auditors audit qualified companies in both member countries, and that audit activities are carried out by persons with sufficient knowledge and experience in theory and practice*" (Sağmanlı and Ersen 2002, 2). However, the 8th Directive did not contain detailed regulations on audit ethics principles or control of auditing standards, quality assurance, public oversight (Kayım 2006, 152). Hence, the 8th directive was renewed, and the Revised 8th Directive was reissued in 2006. Thus, with the Revised 8th Directive, renovated steps were taken to ensure and increase the transparency of the audit companies. In this context, it is envisaged that the annual transparency report of the audit companies in the EU countries will be published. Hence, the Revision 8 Directive provides an advantage to the EU countries that the quality and confidence levels of the audit firms and the audit services provided are high, the innovation aimed at ensuring and enhancing transparency. Subsequently, amendments were made to strengthen further the innovations introduced in the Revised Directive 2006/43/EC in the framework of the EU legislation, and the Regulation No 537/2014 on the Directive 2014/56/EU and the Regulation No 537/2014 on the supervision of the KAYIK (European Parliament). Audit reforms have been carried out with the EU directive numbered 2014/56/EU and regulation 537/2014.

With these audit reforms implemented, "*opening the EU audit market not only to major audit firms but also to other audit firms; to prevent the lack of control and conflicts of interest that have arisen because of financial crises; independence, quality of control and transparency*" (Doğan 2016, p. 5). In the direction of these objectives, the audit reforms of 2014/56/EU and 537/2014 have played an extremely effective role in securing investors and other interested parties and in creating a secure market. The objective is to increase the transparency of audit firms in this role, where auditing reforms are in place. Accordingly, regulation 537/2014 is of importance about the regulation on the transparency report issued by audit companies. And Article 13 of

the By-law, which regulates the transparency report, describes the Public Companies Accounting Oversight Board of Turkey (2014) as follows:

> *The statutory auditor or supervisor who performs a legislative audit of publicly funded institutions shall be obliged to publish a transparency report on its website within four months at the latest and shall continue to be posted on the site for five years after publication. The annual transparency report to the statutory auditor or audit firm will be allowed to be updated, but it will continue to be published at the same time as it was first published on the site* (14).

In this framework, auditing companies are obliged to publish the transparency report they prepared to show transparency about their activities on their Internet sites. The transparency report is open to public access by posting on the Internet sites of audit companies. Thus, supervisory companies are responsible for audits; income they earn; partnership structures; legal structures; control networks; quality control systems; their independence; and so on. Information about the public is increasing the level of trust that will be created about them.

10.8 Transparency and Corporate Governance

Given the relationship between transparency and corporate governance, ensuring transparency and enhancing transparency constitute the most fundamental aspect of corporate governance. Because corporate scandals such as Enron, which lived in the 2000s, led to requests for transparency of corporate governance. And it has become necessary to ensure the clarity of the companies, with the demand for clarity of the companies and the organizations. At the same time, it has also been deemed necessary for companies to create effective corporate governance to ensure transparency. Therefore, it is essential that companies establish transparency and establish effective corporate governance to ensure transparency. Thus, in providing openness and transparency, corporate governance has played an active role in preventing the company scandals that may be experienced as concepts related to each other. And corporate governance aims to avoid companies "interests from being ahead of shareholders" interests, to increase the value of companies and to make companies transparent to increase the number of companies. In line with these aims, corporate governance has the principles of "fairness, transparency, responsibility, accountability" (Gökalp 2005, 114).

These principles of corporate governance are strategic elements that play a significant role in the effective functioning of companies. Transparency is a vital element for future-oriented companies that increase competitiveness, provide sustainability and target retention. On the other hand, it is inevitable that companies that do not comply with the principle of transparency, do not provide clarity or do not pay attention to increasing transparency, will experience suicides, conflicts of interest and failures. For this reason, it is necessary for a company or an enterprise to achieve openness to achieve superior performance and to operate in a dynamic structure, to establish effective corporate governance to ensure transparency, and to comply

with the principles of corporate governance. Transparency plays an active role in the success of companies as one of the fundamental principles of corporate governance. Hence, there is a close relationship between openness and corporate governance, and these relationship developments of companies are essential.

In summary, there is a strategic role of transparency when the quality, confidence level of activities, audits are low or high, and so the level of quality and confidence of the events, inspections, and businesses are reflected in the transparency report to be prepared. Therefore, the transparency report has a very active and useful role on the trust that audit firms will build, with the information about the activities of the audit firms.

10.9 Discussion

First, it is known that today's enterprises are audited from many directions such as administrative, personnel, accounting and auditing are performed effectively in many directions. When an entity is audited for accounting purposes, the financial information and tables of the entity are reviewed, whether the financial transactions are recorded correctly, whether there is any reasonable reporting, and the appropriateness of the financial statements to the financial reporting framework is examined. It is understood that the audit carried out in this direction is an independent audit. Independent auditors play an active role in ensuring that financial statements and other financial information of the entity conform to and generally conform to the standards for financial reporting, to the business environment, to users of financial statements, with reasonable assurance of financial markets.

Accordingly, the financial statements of the companies are of utmost importance in terms of the interest environment, investors, users of the financial statements, markets where the reasonable assurance that independent auditing of the financial information is reliable and reliable. In this context, independent auditing should be carried out correctly and reliably in the audit process in which the financial statements of the enterprises are evaluated according to the financial reporting standards. Therefore, the fact that the independent auditing of the companies providing reasonable assurance about the correctness of the financial statement information is carried out correctly and reliably depends on the correct, reliable, quality and effective operation of the audit companies. In this context, auditing companies, business environment, investors, decision makers financial markets that perform independent auditing of financial information, financial statements of companies play an important role. The fact that this important role is performed correctly and reliably is also indirectly important for investors, decision makers and financial markets. So much so that the financial scandals originating from the 2000s seem to have reduced the public confidence in the markets, corporations and organizations that carry out independent auditing of companies.

Therefore, it has become important for auditing firms, which perform auditing of financial statements of enterprises, to properly and reliably carry out their role with

great care. In this way, it has become clear that auditing companies in the field of public trust must ensure transparency to demonstrate their quality and reliability in the activities they are presenting and in the inspection service they offer. Therefore, audit companies are required to publish a transparency report every year in line with the timely, accurate and complete public disclosure of their financial and non-financial information. Audit companies are therefore required to make clear that they are responsible for the audits they undertake to ensure transparency of their activities, the income they earn, the number of auditors they have, partnerships, the public must disclose the relevant information.

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Part IV
Social Responsibility and Sustainability in Finance

Chapter 11
The Role of Investor Sentiment in Taiwan Stock Market

Serkan Yılmaz Kandır and Emel Yücel

Abstract Aim of this study is to investigate the relationship between investor sentiment and stock returns in Taiwan stock market. In this manner, we employ consumer confidence index as an investor sentiment proxy. Stock return is measured by various stock market indices. Sample period extends from January of 2010 to June of 2015. We employ cointegration and error correction methods. Analysis results suggest the existence of a significant long-run relationship between investor sentiment and small cap stock returns. Furthermore, this relationship appears to be unidirectional from consumer confidence to small cap stock returns.

Keywords Investor sentiment · Consumer confidence · Stock returns
Vector error correction model · Taiwan

11.1 Introduction

The role of consumer confidence in financial markets has been intensively investigated. Consumer confidence is increasingly used as a tool for estimating future stock returns. A number of studies reveal that there is an association between consumer confidence and stock returns in the United States (Fisher and Statman 2003; Ghosh and Clayton 2004; Lemmon and Portniaguina 2006). Moreover, several studies report an international dimension for this relationship (Jansen and Nahuis 2003; Schmeling 2009; Moller et al. 2014).

The role of consumer confidence in estimating stock returns has two explanations. The first one is a rational explanation. Campbell and Cochrane (1999) suggest that high consumer confidence is observed during high growth periods, since risk aversion declines. Second explanation depends on irrational behaviors of investors. Shleifer

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and Summers (1990) maintain that some portion of demand for securities arises from changing sentiment of investors. Noise plays an important role in observing investor sentiment. Black (1986) defines noise as the opposite of information, while Kyle (1985) locates noise traders as a necessary participant of the financial markets. When investment noise traders' behaviors are correlated, then fundamental values of assets tend to deviate from their original values and a source of systematic risk that has to be priced evolves in the stock market (DeLong et al. 1990; Barber et al. 2009a). Although noise traders may be conceived as a small portion of the market participants, their impact on the market may be disproportionate to their share among the market participants. Noise traders may not be alone in chasing noise. Even uninformed rational investors are reported to chase noise and generate a larger impact on the market (Mendel and Shleifer 2012). The additional systematic risk factor introduced by noise traders is referred to as investor sentiment.

Though investor sentiment is a systematic risk factor candidate, it appears to impact stock returns disproportionately. Small and low priced firms with low institutional ownership are more exposed to investor sentiment (Kumar and Lee 2006). Another source of differences in the sensitivities of firms to investor sentiment is related to the volume of available information. In this case, young firms are more prone to investor sentiment (Baker and Wurgler 2007). Likewise, stocks traded in over-the-counter market are highly influenced from investor sentiment (Lee et al. 2002). Risk level of the stock is another potential explanation. Riskier stocks are more exposed to noise trader risk (Trueman 1988). Finally, competition level of the stock market may be another explanation for different exposure levels. In an imperfectly competitive market, role of arbitrageurs against noise traders would not be as effective as it is in a perfectly competitive market. As a result, noise traders will dominate the market and expected utility of noise traders may exceed that of rational investors. In such conditions, investor sentiment may better explain small firms' stock returns (Palomino 2010). Finally, small stocks generally seem to be more exposed to noise trader risk than larger stocks.

Another debate is about the problem of measuring investor sentiment. A natural method of measuring investor sentiment is to use results of surveys specifically designed to gauge investor sentiment. However, since investor sentiment indices have not been available for several countries, a need for employing proxy variables has arisen. In practice, there exist a number of proxies for investor sentiment. When we follow a chronological order, closed-end fund discount seems to be the first proxy of investor sentiment (Lee et al. 1991; Leonard and Schull 1996; Burch et al. 2003). Later, mutual fund flows are employed as an alternative sentiment proxy (Indro 2004; Frazzini and Lamont 2008; Canbas and Kandir 2009; Ben-Rephael et al. 2012). A less popular sentiment proxy is the share turnover (Baker and Stein 2004; Lei et al. 2012; Chen et al. 2013). Likewise, IPO data are also used by a limited number of studies (Baker and Wurgler 2006; Dorn 2009). Finally, some empirical studies employ consumer confidence index as an investor sentiment proxy (Otoo 1999; Fisher and Statman 2003; Jansen and Nahuis 2003; Christ and Bremmer 2003; Ghosh and Clayton 2004; Charoenrook 2005; Qiu and Welch 2006; Lemmon and Portniaguina 2006; Schmeling 2009; Moller et al. 2014).

Another important point that has to be clarified is the role of individual investors in noise trading. Empirical findings overwhelmingly suggest that investor sentiment effect is better observed among individual investors. There are several explanations for the unique irrational investment behaviors of individual investors. First, individual investors fail to diversify even if they know the principles of an efficient diversification (Lease et al. 1974). Second, wealth and portfolio of individual investors are well below that of institutional investors. Thus, individual investors tend to invest in less risky or riskless assets (Debondt 1998). Third, investment horizons of individual investors tend to vary. In order to prevent short-term losses, individual investors tend to invest in debt securities (Samuelson 1989). Fourth, characteristics of the investors also introduce a difference. Share of bonds in the portfolios of conservative investors is less than that of aggressive investors (Canner et al. 1997). Fifth, geography plays a significant role of the compositions of individual investor portfolios. Although home bias is observed among different types of investors, individual investors exhibit an explicit interest in securities of local firms (Coval and Moskowitz 1999).

Our final debate is about the role of investor sentiment in the general economy as a whole and the stock market. First, noise traders insert a favorable impact on stock markets. By introducing additional liquidity, noise traders make it possible for all participants to trade. Without the liquidity introduced by noise traders, it will almost impossible to trade. Only cash needs would enforce rational investors to trade. Otherwise, all informed investors tend to hold their positions constant and market liquidity would decay (Black 1986). Second, although noise trader risk is suggested to have positive impact on aggregate market liquidity, noise trader risk may have detrimental effects on capital stock and consumption when it becomes too large (De Long et al. 1989). This may be perceived as the cost of investor sentiment to the economy.

There are two channels through which we may develop a relationship between investor sentiment and consumer confidence. First, either of the indicators appears to be related to similar types of investors. Although it is not easy to determine the type of investors who benefit from noise, Barber et al. (2009b) report a significant role for individual investors. Likewise, samples of consumer confidence surveys include households. Second channel is related to the association between investor sentiment indices and consumer confidence indices. Fisher and Statman (2003) find that consumer confidence indices and investors sentiment index are associated in the United States.

Aim of this study is to investigate the relationship between investor sentiment and stock returns in Taiwan. We employ consumer confidence index as a proxy of investor sentiment. Stock returns are measured by stock market indices constructed according to market capitalization of companies. Cointegration and error correction models are employed to test the relationship between stock returns and investor sentiment. Although the investor sentiment and stock returns relationship is well documented, the volume of research that examines this issue for emerging markets is rather limited. The number of studies declines further when we examine investor sentiment effect for Pacific Basin countries. Furthermore, beside the general stock

market index, we use small cap and large cap stock indices to account for size differences among Taiwan companies.

The rest of the paper is established as follows. The next part summarizes the literature. The third part presents the data and methodology. The fourth part reports the empirical findings. The last part concludes the paper.

11.2 Literature Review

Investor sentiment and stock returns relationship is well documented. However, a small portion of these studies employs consumer confidence as a proxy of investor sentiment. Since we attempt to clarify the role of consumer confidence as an investor sentiment proxy, we review consumer confidence-oriented studies. Majority of the relevant empirical studies investigate consumer sentiment and stock returns relationship for developed markets. Otoo (1999) reports a simultaneous association between aggregate stock returns and consumer confidence in the United States. Fisher and Statman (2003) examine the stock returns and consumer confidence association by using two separate consumer confidence indices published in the United States. Their findings reveal that there is a directional relationship between S&P 500 returns and consumer confidence. Christ and Bremmer (2003) investigate whether consumer confidence index is related to Dow Jones, S&P 500, and NASDAQ indices. They find that consumer confidence innovations tend to impact stock returns. Charoenrook (2005) analyzes whether annual changes in University of Michigan confidence index impact stock returns. Although several control variables such as short-term interest rates, dividend yield, term premium, and default premium are added to the model, consumer confidence is found to estimate future stock returns. Ghosh and Clayton (2004) report a long-term association between S&P 500 returns and consumer confidence. Qiu and Welch (2006) use two different consumer confidence indices computed in the United States. Findings imply that University of Michigan confidence index has an ability to explain stock returns. Lemmon and Portniaguina (2006) employ two United States-based consumer confidence indices and document a predictive ability of consumer confidence indices for size premium in common stocks. Funke and Matsuda (2006) report international news effect on investor decisions and stock price in Germany. Fernandes et al. (2013) employ consumer confidence index beside several other indicators to examine investor sentiment effect in Portugal. Findings show that although consumer confidence estimates aggregate stock returns, it fails to forecast some industry returns.

Another body of literature investigates the consumer confidence and stock return relationship in a multi-country dimension. Jansen and Nahuis (2003) investigate the relationship between stock returns and consumer confidence in 11 European countries and detect the existence of short-run causal relationship. Moller et al. (2014) document a different result for 11 European countries. Although preliminary results indicate consumer confidence effect for stock returns, later analysis reveals that this effect is subsumed by business cycle.

11.3 Data and Methodology

We derive monthly data of two variables, namely aggregate stock market index and consumer confidence index. The sample period extends from January of 2010 to June of 2015. Thus, there are 66 monthly observations. Data availability dictates the length of the sample period. Consumer confidence index data are available since January of 2010. The overall consumer confidence index is computed by averaging six sub-indices. The sub-indices are favorability of time for buying durable goods, employment opportunities, family economic conditions, overall business conditions, price level, and favorability of time for buying stocks in the coming six months.

Three stock market indices of Taiwan are employed, namely the standard index, the large cap index, and the small cap index. The large cap and small cap indices are generated according to market capitalizations of Taiwan companies. Stock market data and consumer confidence index are obtained from Datastream database.

We employ time series analysis techniques to investigate the stock returns and investor sentiment relationship in Taiwan. Comovement of time series in the long run is referred to as cointegration. In turn, existence of a cointegration relationship among variables allows us to examine causal relationships, namely vector error correction model. However, in order to proceed with cointegration methods, linear combinations of nonstationary series should be stationary. In order to test stationarity of the series, we employ Phillips–Perron (PP) and Augmented Dickey–Fuller (ADF) tests (Dickey and Fuller 1979; Phillips and Perron 1988). Johansen cointegration test is applied to examine the existence of a long-run association, when the series are found to be integrated of the same order (Johansen 1988). Akaike Information Criteria (AIC) and Schwarz Information Criteria (SIC) are employed to determine the lag length in the cointegration analysis (Akaike 1974; Schwarz 1978). Johansen cointegration method depends on two maximum likelihood test statistics, namely Max-Eigen statistic and Trace statistic (Johansen and Juselius 1990). Results of these tests demonstrate the existence and number of cointegrating vectors among the series. When cointegration test reveals the existence of cointegration relationship, short-run relationships may be tested by an error correction model (VECM) (Granger 1988):

$$\Delta Y_t = \alpha + \sum_{i=1}^{m} \beta_i \Delta X_{t-i} + \sum_{i=1}^{n} \delta_i \Delta Y_{t-i} + \lambda_1 \mathrm{EC}_{t-1} + \varepsilon_t \tag{11.1}$$

$$\Delta X_t = \alpha + \sum_{i=1}^{l} \beta_i \Delta X_{t-i} + \sum_{i=1}^{p} \delta_i \Delta Y_{t-i} + \lambda_2 \mathrm{EC}_{t-1} + \nu_t \tag{11.2}$$

where,

EC_{t-1} is the error correction term,
Δ is the first difference operator,
β, δ, and λ are parameters to be estimated.

Table 11.1 Descriptive statistics

	Mean	Median	Minimum	Maximum	Standard Deviation	Jarque–Bera test
Consumer confidence index	80.7032	80.0100	65.9800	92.9300	5.6128	0.5020 (0.778)
Stock market $index_{Standard}$	295.9476	291.0105	246.8710	357.7260	29.1935	3.6281 (0.163)
Stock market $index_{Small}$	977.1776	1006.722	738.6750	1131.608	99.2013	4.7403 (0.094)
Stock market $index_{Large}$	948.1831	932.6165	795.6220	1169.991	99.1768	4.8539 (0.088)

Note Numbers in parentheses indicate *p* values

While we examine the existence of long-run relationship by estimating the VECM, we also explore the significance of a short-run association. Furthermore, serial correlation is detected by using Lagrange multiplier test.

11.4 Empirical Results

Descriptive statistics are presented in Table 11.1. When we consider differences in index values, there appear similar average and deviation values for stock market indices. Consumer confidence index level varies between approximately 65 and 93. Even the maximum level could not reach 100. Thus, pessimism seems to prevail during the sample period. Jarque–Bera test statistics indicate that series are normally distributed.

In order to determine the stationarity of the series, ADF and PP tests are used for levels and first differences for the series and findings are presented in Table 11.2.

Findings in Table 11.2 indicate that all time series are nonstationary in levels. Nevertheless, when we examine first differences, all of the series appear to be stationary. Thus, consumer confidence index and stock indices are integrated of order 1. After determining the integration between consumer confidence index and stock indices, we examine the association among the variables by Johansen cointegration test. Firstly, appropriate lag length is estimated by using AIC and SIC. Both lag criteria show that appropriate lag length seems to be 1. Cointegration test results are reported in Table 11.3.

Findings in Table 11.3 demonstrate different results. Although the hypothesis of no cointegration among variables is not rejected for aggregate index and large cap stock index, the same hypothesis is rejected for small cap stock index. In other words,

Table 11.2 The results of Augmented Dickey–Fuller Test and Phillips–Perron Test

	Augmented Dickey–Fuller			Phillips–Perron		
	None	Intercept	Intercept and trend	None	Intercept	Intercept and trend
Stock market $index_{Standard}$	0.3926 (0.794)	−1.1254 (0.701)	−2.1483 (0.510)	0.4261 (0.803)	−1.0988 (0.712)	−2.1472 (0.510)
Δ Stock market $index_{Standard}$	−8.8751 (0.000)*	−8.9094 (0.000)*	−8.8399 (0.000)*	−8.8543 (0.000)*	−8.8743 (0.000)*	−8.8115 (0.000)*
Stock market $index_{Small}$	−0.2889 (0.578)	−2.0840 (0.252)	−2.1191 (0.526)	−0.2846 (0.580)	−2.1899 (0.212)	−2.2209 (0.470)
Δ Stock market $index_{Small}$	−7.8518 (0.000)*	−7.7919 (0.000)*	−7.7018 (0.000)*	−7.8476 (0.000)*	−7.7892 (0.000)*	−7.7021 (0.000)*
Stock market $index_{Large}$	0.5459 (0.832)	−0.8508 (0.798)	−2.1571 (0.505)	0.5850 (0.840)	−0.8508 (0.798)	−2.1468 (0.510)
Δ Stock market $index_{Large}$	−8.8994 (0.000)*	−8.9686 (0.000)*	−8.9340 (0.000)*	−8.8793 (0.000)*	−8.9288 (0.000)*	−8.9017 (0.000)*
Consumer confidence index	1.3596 (0.955)	−2.2056 (0.206)	−2.1427 (0.513)	1.2678 (0.947)	−2.3652 (0.156)	−2.3553 (0.399)
Δ Consumer confidence index	−7.5803 (0.000)*	−7.6107 (0.000)*	−7.5320 (0.000)*	−7.5864 (0.000)*	−7.6140 (0.000)*	−7.5354 (0.000)*

Notes Numbers in parentheses denote p values. *Indicates that the coefficient is statistically significant at 1% level

Table 11.3 Johansen maximum likelihood estimation results

	Hypothesis	Eigenvalue	Trace statistic	Max-Eigen statistic
Stock market $index_{Standard}$	$R = 0$	0.1379	11.3409 (0.191)	9.4978 (0.247)
	$R \leq 1$	0.0284	1.8431 (0.175)	1.8431 (0.175)
Stock market $index_{Small}$	$R = 0$	0.1802	16.5954 (0.034)*	12.7164 (0.087)*
	$R \leq 1$	0.0588	3.8790 (0.049)*	3.8790 (0.049)*
Stock market $index_{Large}$	$R = 0$	0.1193	9.1941 (0.348)	8.1300 (0.366)
	$R \leq 1$	0.0165	1.0640 (0.302)	1.0640 (0.302)

Notes *Denotes that the coefficient is statistically significant at 1% level
Trace statistic are 15.4947 for $R = 0$ and 3.8415 for $R \leq 1$ for critical values at 5%
Max-Eigen statistic are 14.2646 for $R = 0$ and 3.8415 for $R \leq 1$ for critical values at 5%

Table 11.4 Error correction model results

	Stock market index$_{Small}$	*P* value
Error correction term	−0.1866 (−2.52)	(0.012)**
Stock market index$_{Small(t-1)}$	0.1075 (0.84)	(0.402)
Stock market index$_{Small(t-2)}$	−0.1628 (−1.35)	(0.176)
Stock market index$_{Small(t-3)}$	0.2309 (2.08)	(0.370)
Consumer confidence index$_{(t-1)}$	11.8069 (4.05)	(0.000)*
Consumer confidence index$_{(t-2)}$	1.8987 (0.58)	(0.564)
Consumer confidence index$_{(t-3)}$	−2.2465 (−0.77)	(0.439)
Constant	0.0052 (0.00)	(0.999)
R-square	0.35	
Lagrange multiplier test	0.5563	(0.968)

Notes Numbers in parentheses under coefficients represent t values. * and ** Denote that the coefficients are statistically significant, respectively, at 1 and 5% levels

consumer confidence is cointegrated with small cap stock index, while consumer confidence index is not cointegrated with the other two stock indices. Thus, consumer confidence seems to share a long-run relationship only with small cap stock returns in Taiwan. After finding a significant relationship between small cap stock returns and consumer confidence, we employ vector error correction model to test the causal relationship between these two variables. Table 11.4 reports VECM results.

LM test results demonstrate that residuals indicate no serial correlation. We check the short-term causality by testing linear hypothesis as a post-estimation test. Results of the test indicate that there is short-run causality running from consumer confidence to small cap stock returns (chi-square: 17.13, *p* value: 0.001). Findings presented in Table 11.4 demonstrate that error correction parameter for small stock index is negative and significant at 5% confidence level. Nevertheless, error correction parameter for consumer confidence is not statistically significant. These findings imply that there is a unidirectional relationship from consumer confidence to small cap stock returns. This finding is in line with the literature (Christ and Bremmer 2003; Charoenrook 2005; Qiu and Welch 2006; Lemmon and Portniaguina 2006). Beside reaching a similar result with most of the empirical studies, we find that merely small stock returns are impacted by consumer confidence. However, neither the aggregate stock market index nor the large cap stocks does not seem to be exposed to noise trader risk. Like Kelly (1997) and Barber et al. (2009b), our findings also imply that individual

investors seem to be engaged with noise trading. The interest of individual investors in small cap company shares is well documented (Lee et al. 1991). Since firm-specific risk factors may be eliminated in a well-diversified stock portfolio, noise trader risk may be diversified by including large cap stocks in a portfolio.

11.5 Conclusions

In this paper, we examine the investor sentiment effect in Taiwan market. In this manner, we estimate VECM in which investor sentiment is proxied by consumer confidence index. Aggregate, large cap, and small cap indices are employed to consider size effect. Sample period spans from January of 2010 to June of 2015.

Our empirical findings suggest that size is a significant factor for evaluating the role of investor sentiment in Taiwan stock market. Although small cap stock returns appear to be affected by investor sentiment, aggregate and large cap stock returns do not seem to be associated with investor sentiment. Moreover, we find a unidirectional causal relationship between small cap stock returns and investor sentiment. Sentiment seems to impact small cap stock returns. However, vice versa is not true. Thus, investor sentiment appears to influence a limited section of Taiwan stock market. A possible explanation of this finding depends on the fact that investor sentiment does not impact each stock with the same degree. Small, low priced, risky stocks with low institutional ownership tend to be more exposed to investor sentiment. In addition, size of the general market may also impact the degree of the investor sentiment effect. Since Taiwan stock market is a relatively small one, it is not surprising to find a significant investor sentiment effect.

Our findings have several implications. First, a significant portion of investors in Taiwan stock market seems to deprive of the favorable result of investor sentiment, namely additional liquidity. Investors of large cap Taiwan stocks tend to miss liquidity introduced by noise traders. On the other hand, Taiwan economy appears to suffer less from the negative results of investor sentiment. General economy would be negatively impacted by the additional volatility introduced by noise traders. Since investor sentiment seems to exist in a single segment of the stock market, its negative results would have a limited effect on Taiwan economy.

In this study, we investigate the role of investor sentiment in Taiwan stock market. Due to data availability, we use a relatively short sample period. In addition, this study focuses on a single market. Future studies may contribute to the literature in two dimensions. First, time period may be extended by employing other investor sentiment proxies. Second, we may have a better understanding of whether investor sentiment effect is a widespread phenomenon among the other Pacific Basin countries.

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Chapter 12
Analysis of Article Methodologies on Financial Statements' Transparency Between the Years 2000 and 2016

Ülkü Ergun, Seçkin Gönen, Bilal Solak and Nur Fidanci

Abstract Accounting scandals that took place in the last quarter of the twentieth century such as the one at ENRON and PARMALAT prove the importance of transparency and objectivity for the presentation of financial statements. Accounting researchers all over Turkey and other countries have started to publish more studies using different kinds of methodologies on providing transparency for the financial statements due to the scandals. Published work by accounting scientists is extraordinarily crucial both for accounting theory and shaping accounting applications. In this research, article methodologies about transparency published between years 2000 and 2016 has been studied using content analysis method and results have been interpreted based on literature.

Keywords Methodology · Financial statement · Transparency · Accounting Researcher

12.1 Introduction

Corporations are under the obligation of periodically informing the public about the results of their activities and interactions. Groups involved with the corporation make decisions according to the given information by the corporation. The net economic results of a corporation's actions are discretely shown and presented on financial statements. Hence, the most important feature of financial statements is accurate and precise. In this context, the importance of financial statements' transparency and function in public elucidation is easily observed. Corporations must inform both shareowners and those who are involved with them in other ways on financial and non-financial related issues. The set of information given should be

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clear, easy to understand and accessible. Transparency is defined as the expression of all information related to the corporation's evaluation.

A corporation's transparency is closely related to the foundation and proliferation of capital market through time. It is through the protection of investor rights that capital market activity is the main tainted, and participants of the market get safely involved in their business-related actions. To provide that, the corporations need to inform the public by the corporations continuously and constitute trust and clarity principles considering the equality of information. All kind of information that comes up because of corporation's financial qualities and activities or determines decision-making processes and approach of the investors is defined as financial information. This type of information takes place mainly at the financial reports of the corporations. Financial reports must be clear, transparent and prepared on time, considering that they are tools for accountability of corporation. Companies such as Enron, WorldCom, Parmalat not only bankrupted because they used subjective, unreliable and inconsistent information but also caused severe damage to their investors. Aforementioned accounting scandals that took place in the early 2000s caused the investors to lose trust toward both the financial markets and the accounting world. In the end, it has become more and more crucial for the investors that corporations file their financial reports more transparently and that inspectors demonstrate ethical understanding.

With the effect of globalization, the importance of transparency has been increasing in the present financial system both for the national and international businesses to maintain their actions in the same active and competitive way as they do. Developments taking place in a country or a district rapidly and quickly spread to other countries thanks to increasing market integration. Mainly, international businesses guide developing countries that aim to attract foreign investors suggesting what set of information they need to request from corporations and public institutions. Increase in importance of transparency requires more focus on the issue. Transparency is an essential part of economic and social life at every level. Hence, it is possible to encounter all types of studies that include transparency. In this study, transparency has been evaluated as providing precise and reliable information which is most definitely a necessity for the financial market. Some of the accounting journals have been studied, and a content analysis was conducted. Before moving on to the analysis, the definition of transparency will be explained, and a literature review will be covered.

12.2 Transparency

Transparency is the ability to account people, corporations and markets of government responsible for their actions and policies. In this regard, transparency, according to the businesses, is defined as a declaration of all information to the public for evaluation (Elitaş and Kiracı 2016: 842–843). Transparency lies in the very area of intersection between the public's right to know and the corporation's right to privacy. Public's right to know is interested in owners' rights to know the corporation's

management, activities and strategies. Corporation's right to privacy is the right to control the collection, usage and distribution of all sorts of information related to itself (Arsoy 2008: 20).

Transparency is the approach of announcing the financial and non-financial information related to the company; promptly, without any reserve, in an understandable, interpretable and accessible way to the public, excluding the information with secret content and yet to be disclosed to public knowledge (Pamukçu 2011: 136). The primary purpose of transparency is to enlighten the public opinion. As for enlightening the public opinion, it is defined as presenting both the financial information that institutions that organize the capital markets, enforce to state, in an appropriate way to the institutional transparency requirements; and the financial and non-financial information in an understandable and a clear way to the public (Dönmez et al. 2016: 319). The impact of transparency on investor relationships and the markets is undeniably significant. It is especially crucial for the financial markets to function correctly and with full knowledge. Investors who consider being a shareholder trust the businesses that share information consistent with transparency policies. Hereby, this helps from the basis of a strong capital market (Yürekli and Uyar 2016: 785). It is expected from the corporations to present realistic financial statements as they show the institution's activity results. Significantly, this kind of actions builds trust among the public. Hence, it is a fact that financial statements that are suitable for the international accounting standards and that have qualified for the independent audit add prestige to the corporations.

12.3 Literature Review

Today, especially in recent years, transparency has been an interesting concept for scholars and decision-makers internationally. Many researches have been conducted by people with different point of views and importance of transparency not only in economic, political and social life but also on corporate governance and public management has been mentioned in articles. Transparency is a concept based on the information. Hence, it is important that shared information be reliable and accurate. Different perspectives on the issue are stated below. Altintas (2006) studied the importance of transparency and level of information for banking and preventing financial crises. He found out that transparency and clarity would not play an active role in the prevention of the banking crisis without accepting proper economic and management policies.

- Bleck and Liu (2007) analyzed the transparency of markets. They compared corporations using modern and transparent accounting applications versus corporations that produce statements with outdated methods. As a result, they found out that corporations with transparent accounting systems have more favorable and stronger position in the stock market, and their liquidity level is high enough not to be affected by financial crises.

- Akay and Nargeleçekenler (2008) conducted both theoretical and applied research on Central Bank's transparency. According to their findings, increase in Central Bank's transparency decreases the uncertainty of private sector and volatility of production, maintain economic stability and provide flexibility for the Central Bank.
- Arsoy (2008) emphasized that transparency which has become an ethical necessity in the field increase in importance for maintaining the competitive actions of national and international institutions which take part in the arrangement of global financial systems.
- Bernoth and Wolff (2008) studied the effect of creative accounting on bond incomes and interest rates using the financial data of the European Union. Their findings proved that biased data increases the market risk premium and cause investors to avoid the market.
- Gao (2008) discussed that information that is made public play an important role in determining the prices in the stock market. The root of that information is the financial statements created by the accounting department. Corporations' economic improvement and market activity are dependent on forming financial statements according to the transparency principles.
- Burkhardt and Strausz (2009) defined, in their researches, the effect of transparency on the usage of foreign resources. They have found out that the more transparent a company is, the less they would need foreign resources. On the other hand, a corporation that uses traditional accounting methods is more advantageous when they need more resources.
- Kalkan and Alparslan (2009) studies the relation between transparency/accountability and local administrators' success. According to a survey conducted on people of Bucak, a district in the city Burdur, accountability and transparency have a positive effect on local administration's success directly.
- Elliott et al. (2010) studied the effect of transparency on investor decisions where he mainly analyzed deviations in corporations' market values. He observed that companies with accounting transparency do not deviate much from the customers' expectations and over/underpricing do not happen.
- Temizel and Coşkun (2010) studied the contribution of spontaneous, precise and transparent informing policy to the trustworthiness of the corporation according to investors. Furthermore, it is stated that investing relations is a tool of communication and transparency that could increase the level of trust toward the company.
- Ünsal (2010) examined blurry financial transparency in his study. It was shown that in countries without transparent financial systems, there is a strong link between financial transparency and public transparency.
- Beauchamp and Ford (2011) observed transparency applications in Federal Reserve Bank of New York. Selling of securities with a much higher rate of discount than the normal market value leads to serious damage to the capital base. The reason for such high rates of discount is that market does not match with accounting standards and that main accounting principles, and transparency principles are not being followed. As a result, credit risk might arise or interest rates might get out of hand.

- Demirhan and Demirhan (2011) researched transparency applications of monetary policy. In their study where Turkey and other countries' experiences were analyzed, it was concluded that relationships with public and economic indicators were improving in developed countries thanks to their clear financial policies.
- Elitaş and Elitaş (2011) studied the patterns of legal arrangements by informing public and transparency policy and stated that in order to diminish creative accounting problems, accounting principles should be rearranged into a more concrete form.
- Lang and Maffett (2011) revealed the relationship between transparency and liquidity in their studies. The findings show corporations that organize their financial statements by accounting standards and transparency principles suffer less from liquidity problems during an economic crisis.
- Pamukçu (2011) studied the importance of institutional management in informing public and transparency. Findings point out that investors prefer companies with more transparency in their investments. All this considered, one could say that this is one of the ways for corporations to have a stronger economy.
- Deumes et al. (2012) examined how auditing firms affect transparency reports' auditing qualities. Results of research conducted on 103 auditing firms from the European Union confirm that auditing quality increased significantly because of transparency reports.
- Sagner (2012) believes that it would have a positive effect on the corporations if international banks increase the level of transparency. He believes that active information sharing, a decrease in capital cost and reaching an optimal level of risk relations with investors are the reasons leading to his statement.
- Arnold and Earl (2013) think that the most important factor for forming current market prices, determining a corporation's value and the price of a new product is transparency. Furthermore, he particularly suggests that to improve transparency, one should carefully evaluate the works of the International Accounting Standards Board.
- Boztepe (2013) tried to determine credibility toward public institutions by doing a survey. He concluded that corporations with transparency and accountability are considered more trustworthy.
- Dholakia (2013) claims that integration to the International Financial Reporting Standards will be an easier process and with higher quality standards, the corporation's economic improvement will be faster thanks to transparency principles.
- According to this result, Danielsen et al. (2014) conducted on real estate investment trusts and their transparency levels states if companies that are highly processed in the market and that have a complex organizational system maintain their transparency policy, they are more likely to be preferred in the market and to have higher rates of spread.
- Lee and Hua Lee analyzed corporation rankings of Information Disclosure and Transparency Ranking System created by the Taiwan Securities and Future Commission in 2003. They found out that high-ranking companies are unlikely to get manipulated while low-ranking companies are only controlled through manipulation when it comes to sudden changes and high prices.

- Saremi and Mohammadi (2015) conducted various researches on the importance of transparency and accountability at public institutions. Their findings showed that transparency policy leads to healthier decision-making and a decrease in the level of bribery and corruption making professional misconduct harder.
- Akdoğan and Çetinkaya (2016) researched the transparency level of information given at their institutional Web sites by thirty metropolitan municipalities from Turkey. The results concluded that local governments in Turkey do not provide an exchange of information sufficiently.
- Dizman and Yanik (2016) pointed out the importance of accountability and transparency considering how off-the-record economy causes tax losses, and these losses affect the economic progress. They added that with transparency, off-the-record economy levels would drop.
- Dönmez et al. (2016) analyzed public notices of rare occasions by the Capital Market Boards of Turkey (CMB). It was observed that corporations mostly violated principles of transparency when it comes to notifying extraordinary occasions and changes in the market. Furthermore, this was when these corporations were mostly penalized for their actions.
- Gönen and Solak (2016) studied the relationship between transparency and role of professionals in accounting for determining the internal control risk. Findings show that members of the profession working for national corporations do not have an active role on internal control systems while the one who work for international corporations do.
- Gör et al. (2016) studied how corporate governance applications regarding transparency affect financial reporting period. Findings prove that factors are the number of people in the board of directors, selecting different people for the positions of general manager and head of the board of directors, level of foreign investment in corporation's fund and total asset.
- Koç and Özkan (2016) analyzed the concept of risk notification as a part of transparency principle and arrangements in England as volunteer risk notification is adopted there. Findings show that improvements at risk notification while Turkey does not have legal arrangements on the matter. On the other hand, it would be beneficial to make risk notifications obligatory considering Turkey's sociocultural structure.
- Narbay and Sönmez (2016) declare that transparency is the most important part of corporate governance and emphasize the positive effect of transparency on corporations. Findings of their study show us that the optimal level of transparency is the most important factor in a corporation's success.
- Özerhan and Aslan (2016) examined IFRS 9 (International Financial Reporting Standards) regarding transparency and concluded that if reporting were done in that manner, calculating the decrease in value of financial assets and recognition would have a positive role in transparency.
- Yürekli and Uyar (2016) reported that the boards that are expected to be transparent and accountable, especially in cases that don't have an explicit provision in their

standards, are affected by the professional judgment. Hence, they reflected the importance of the ethics education that will ensure the use of professional judgment in an honest and a fair way, to prevent the abuse of it.

12.4 Methodologies Used in Accounting Studies

In researches on accounting, some scientists prefer detailed methodological classification methods while some use more limited methodological research methods. In Table 12.1, suggestions made on applied research methodologies in accounting science are given.

In accounting, research methodologies can be classified into five groups: archival, analytical, experimental, survey and normative. Some of the first scientists to research

Table 12.1 Research methodology proposals for accounting science

Accounting methodology proposal	Researchers
Archival—Laboratory experiments—Analytical—Field study—Case study—Opinion/Ideas	Buckley et al. (1976)
General experimental—Capital market—Behavioral—Analytical and economic modeling—Discussion	Carnaghan et al. (1994)
Statistical—Laboratory experiments—Field research—Case study—Case study and statistics	Lukka and Kasanen (1996)
Archival—Experimental—Internal logic—Survey—Case study—Field research—Content analysis—Ethnographic	Searcy and Mentzer (2003)
Observational and archival—Experimental—Analytic—Field research and case study—Survey	Kachelmeier (2009)
Archival—Experimental—Simulation—Internal logic—Survey—Case study	Bouillon and Ravenscroft (2010)
Archival—Experimental—Analytical—Observational—Case study—Field research	Salterio (2010)
Archival—Experimental—Analytical	Pickerd et al. (2011); Stephen et al. (2011)
Archival—Experimental—Field research—Observational—-Survey—Theoretical—Normative	Oler et al. (2010)
Analytical—Archival—Experimental—Other (Survey—Case study—Field research, Simulation, etc.)	Coyne et al. (2010)
Laboratory experiments, Field observation, Longitudinal, Cross-sectional, United research strategies, Case study, Grounded theory, Ethnographic, Interpretive, Biographic, Other	Olalere (2011)

Source Erdogan et al. (2016)

accounting research methodology are Buckley et al. (1976). Further researchers have suggested similar methodological classifications as well. Some of the researchers suggested more detailed methodological classifications while some others suggested more general research methodologies.

12.5 Extent of Study

In this section, Aim, limits, method and analysis results of this study have been given, and the findings have been analyzed.

The Aim of the Study

This study aims to analyze methodologies of articles written about transparency that appear on some of the most important and internationally cited accounting journals in Turkey such as The World of Accounting Science, The Journal of Accounting and Finance and Accounting and Auditing Review.

Limits of the Study

Data of our research is limited to the articles published in journals The World of Accounting Science, The Journal of Accounting and Finance and Accounting and Auditing Review in years 2000–2016.

Research Methodology

Data resource of the study is the articles published in journals The World of Accounting Science, The Journal of Accounting and Finance and Accounting and Auditing Review in years 2000–2016. These articles have been analyzed using an archival research methodology, and the results have been interpreted.

12.6 Research Findings

In this part, the findings of our study have been discussed based on accounting literature.

The most important scientific journals on accounting published in Turkey can be seen in Table 12.2. The World of Accounting Science Journal has been getting published four times a year since 1999 (in January, April, September and December) and is indexed by some of the most important databases such as EBSCOhost and ACADEMIC SEARCH COMPLETE. The Journal of Accounting and Finance gets published four times a year (in January, April, June, October) and is indexed by some of the most important databases such as TUBITAK-ULAKBIM (Social Sciences Database), EBSCOhost (Business Source Complete), ASOSIndex and Index Copernicus. The journal Accounting and Auditing Review are indexed by some

Table 12.2 Most important journals on accounting published in Turkey and their index type

Name of the journal	Index type
The World of Accounting Science	Field indexed
The Journal of Accounting and Finance	Field indexed
Accounting and Auditing Review	Field indexed

Table 12.3 Number of articles on transparency

Journals	1st Period (2000–2005)	2nd Period (2006–2010)	3rd Period (2011–2016)	Total (2005–2016)
The World of Accounting Science	3	1	18	22
The Journal of Accounting and Finance	1	1	2	4
Accounting and Auditing Review	1	–	1	2
Total	5	2	21	28

Table 12.4 Methodologies used in published articles

Periods	1st Period (2000–2005)	2nd Period (2006–2010)	3rd Period (2011–2016)	Total (2000–2016)
Survey			3	3
Archival	3		15	18
Experimental			1	1
Theoretical	2	2	2	6
Case Study				
Total	5	2	21	28

of the most important databases such as TUBITAK-ULAKBIM (Social Sciences Database), EBSCOhost (Business Source Complete), ASOSIndex and Index Copernicus. Another important thing to know about this journal is that it is followed by professionals in the field of accounting and that it is published by the Union of Chambers of Certified Public Accountants of Turkey (TURMOB).

There are 28 articles about transparency published between years 2000 and 2016. When compared to numbers of international journals, the numbers are inadequate. Considering international literature, transparency has often been discussed between years 2000 and 2005 due to corruption incidents that took place in the 2000s such as ENRON and PARMALAT. On the other hand, considering Table 12.3, the fact that only five articles on transparency were published in Turkey proves that this topic was not discussed well enough (Table 12.4).

When classifications that were done based on work published at the 11 most prestigious accounting journals (AOS, Auditing, BRIA, CAR, JAE, JAR, JATA, JIS, JMAR, RAST and TAR) by Coyne et al. (2010) were compared to the studies about

Table 12.5 Distribution of subject in published articles

Period	1st Period (2000–2005)	2nd Period (2006–2010)	3rd Period (2011–2016)	Total (2000–2016)
Transparency—Financial statements relations	2		3	5
Transparency—Professional relations			1	1
Transparency—Independent auditing relations			3	3
Transparency—Sustainability reports relations			1	1
Transparency—Public sector relations			2	2
Transparency—Economy relations			2	2
Transparency reports	2	1	1	4
Transparency—IFRS relations			3	3
Transparency—Corporate governance relations			2	2
Transparency—Accountability relations	1	1	2	4
Transparency—Professional judgment relations			1	1
Total	5	2	21	28

transparency in Turkey, there are some serious differences. The most remarkable part is the research methodology choices. While 48% of articles published on the 11 most prestigious journals preferred analytical and archival accounting research methodologies, none of the articles about transparency that were published between years 2000 and 2016 in Turkey did analytical accounting research. Other important difference is the archival studies. 37% of the articles published in journals used the archival method as accounting research methodology while in Turkey, the rate of archival studies used on articles about transparency is 11% in the two first periods. In the last period (2011–2016), the rate increases up to 53% due to raising awareness toward transparency. In total, the number of whole periods (2000–2016) has been 64%.

Topics of articles written about transparency are shown in Table 12.5. According to the table, it is observed that "transparency-financial statements relations" is studied the most. Aside from that, "transparency statements" is among mostly mentioned topics as well. Another thing to notice from the table is that although they are the ones playing an active role in maintaining transparency, professionals of the field are the subject of only one article. When the distribution of subjects on articles published in Turkey and about transparency is evaluated, the analysis of the findings is given below:

Transparency—Financial Statements Relations: In this part, the relations between financial statements the accounting research methodologies. As a result, it is found that financial statements are not transparent enough in Turkey. Transparency—financial statement relations is the most studied topic of transparency.
Transparency—Professional Relations: In this part, importance and effect of accounting professionals' on providing transparency of financial tables. Surveying method is used as the research methodology.
Transparency—Independent Auditing Relations: In this part, the effect of financial statement transparency on auditing quality and importance of information systems in maintaining auditing transparency have been studied. Studies were based on theory.
Transparency—Sustainability Reports Relations: In this study, the importance of sustainability reports on maintaining transparency has been analyzed. Analysis has been carried out using one of the accounting research methodologies, archival research method.
Transparency—IFRS Relations: In the first study group of transparency—IFRS relations research, importance and effect of IFRS applications on transparency have been analyzed. In the second group, conducted research has been examined chronologically.
Transparency—Accountability Relations: One of the most analyzed topics about transparency is transparency and accountability relations. In studies on this topic, how much accountability a corporation with transparent reporting policy may hold compared to other corporations. Archival research method has been used as the research methodology in this study.
Transparency—Professional Judgment Relations: In this study, importance and effect of the professional judgment on providing transparency of financial reports has been studied. Survey method has been used as the research methodology in this study.

12.7 Conclusion

Transparency mainly includes providing usage of loans by the investors, credibility of loan takers and presentation of public services by the government and accurate, reliable, timely flow of economic, social and political information about the international corporation actions. To maintain stability in accounting, it is crucial to enhance supervision and auditing, increase application qualities and internalize ethic rules.

In this study, the three most important accounting journals in Turkey—The World of Accounting Science, The Journal of Accounting and Finance and Accounting and Auditing Review—were analyzed to study article methodologies on transparency published on years between 2000 and 2016. During the study, 28 articles on transparency were studied regarding field and methodology. Due to accounting scandals in the 2000s, transparency was among the popular article subjects internationally. On the other hand, there were five published articles on the topic between the years

2000 and 2005. The number of studies on transparency increased drastically between the years 2011 and 2016. The biggest reason for that is 12. International Accounting Conference in Ankara held by Accounting Academicians Research and Collaboration Foundation on October 2015. The main topic of this event was "Transparency and Accountability" and presented ideas were published in the special edition of The World of Accounting Science Journal. This reveals that transparency is gaining importance.

One of the other findings in this study is that most of the published work about transparency mostly concentrated on transparency–financial statements relations. According to the methodologies, it is observed that analytic studies were not given much of attention while archival studies were conducted more frequently.

For the researchers planning to study transparency in future works, it is recommended to focus on transparency–professional judgment relations, the role of professionals in the field of accounting on transparency and increasing transparency in independent auditing.

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Chapter 13
Corporate Governance Attributes and Firm's Value

Noirom Dony, Corina Joseph and Bernadette Josephine James

Abstract Contemporary corporate scandals and the East Asian financial crisis, other than the latest worldwide economic recession, are the consequence of incompetent corporate governance structures. This is contributed by lack of sound corporate governance due to separation of ownership and control that causes agency problems in the firms. In agency theory, the managers are expected to engage in their own pursuit instead of the shareholders' interest. This happens as shareholders are usually dispersed, therefore affecting adversely the capabilities to monitor and control managers' actions. It has been broadly recommended that corporate governance attributes develop suitable systems in the manner of firm's achievement and transparency. Therefore, the purpose of this paper is to examine the firm value following the introduction of Malaysian Code of Corporate Governance 2012 recommendations and to analyse the relationship between corporate governance attributes and firm value using the agency theory. The corporate governance attributes examined were: board size, outside directors, CEO duality and managerial ownership. The samples were taken from the top 100 public listed firms on Bursa Malaysia based on their market capitalization. The findings reveal that the CEO duality and managerial ownership are significantly associated with the firm value. The findings may help policy makers to formulate future effective code of best practice for firm's value enhancement.

Keywords Corporate governance · Agency theory · Firm value · MCCG 2012

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13.1 Introduction

Asian financial crisis 1997 and 1998 had influenced most of the Asian countries including Malaysia. Bank Negara Malaysia revealed that the gross domestic product was 7.3 during the related period, implying poor corporate governance that had adverse impact on investors' confidence. Therefore, researchers started to investigate the corporate governance area from many angles, and authorities started to be on track to implement rules and regulations to mitigate this issue. Several guidelines have been implemented by several countries around the globe—Cadbury Report was released in United Kingdom (UK), Sarbanes Oxley in United States (USA), The Dey Report in Canada, the Vienot Report in France, the Olivencia Report in Spain, the King's Report in South Africa, Principles and Guidelines on Corporate Governance in New Zealand and the Cromme Code in Germany. The aim of these regulations was to enhance company's corporate governance milieu.

Corporate governance is a progressing topic area coerced to necessitate reinstating investor assurance in capital markets. It is referring to the system of rules, practices and processes by which an organization is directed and controlled. It was advocated that policies related to good governance are important to improve company's achievement. (Valenti et al. 2011). According to Agrawal and Knoeber (1996), firm through good corporate governance policies will be able to obtain financial resources for investing at a lower cost resulting in stronger firm value. This is due to investors' preference to deal with firm with good governance practices.

Good governance and bad governance are differentiated by one of the important elements of the corporate governance that is the structure of the board of directors. The board of directors consist of individuals with fiduciary duties of safeguarding the firm's shareholders' interest. The related element is considered as the highest internal control system in corporate governance (Abdullah 2004). It is known as a mechanism used in corporate governance to monitor management by reviewing their performance to ensure it is in line with the strategies and approaches related to the corporate goals. The focus of the corporate goals is to realize long-term shareholders' value.

In response to the economic turmoil in 1997, Malaysian authorities have instituted the Finance Committee in 1998 to investigate a formation of framework for corporate governance and the best practices for the industry. Enhanced corporate governance would greatly assist in restoring investors' confidence in the Malaysian market. Consequently, the Malaysian Code of Corporate Governance (MCCG) was established in 2000 stating clearly the separation of the roles of chairman of the board (COB) and chief executive officer (CEO) and the composition of outside directors in the board should make up at least two-third or one-third of the board membership. Compliance with the code was not compulsory at that time; however, following revised Kuala Lumpur Stock Exchange (KLSE) listing requirements in 2001, it is required that all listed firms disclose in their annual report the Statement of Corporate Governance stating how they applied and the extent of their compliance with the code. Malaysian

authorities are continuously making corporate governance reform resulting MCCG 2007, MCCG Blueprint 2011 and the latest one which is MCCG 2012.

In global competitive market, fund for investment is vital for firms' survival in the evolving markets. Fund provider for the investments that is investors would prefer to associate with firms of better governance practices. Agrawal et al. (1996) states cheaper investments fund is always available to firms with better governance practices. This is due to investors' confidence towards firms with good governance practices as it will ensure transparency and proper use of firm's resources.

Awareness on corporate governance is very important as neglecting the issue would penalize the firms with adverse value. Furthermore, the association of corporate governance attributes and firm value differs among countries all over the world. This is contributed by disparate corporate governance structures resulting from divergent social, economic and regulatory environment in these countries. The current findings of this study will add value to the existing body of knowledge on corporate governance. Consequently, it may help the future policy makers in formulating effective code of best practice for firm's value enhancement.

Therefore, this study will provide empirical evidence by extending a previous research conducted by Siagian et al. (2013). The related research was conducted using corporate governance index using internal and external corporate governance mechanisms conducted in Indonesia. In this study, instead of using both mechanisms, the focus is mainly on internal mechanism on board of directors using normal and actual measurement instead of corporate governance index.

The remaining of this paper is presented as follows. The next section explains briefly the review of prior literatures on firm value and the corporate governance variables. Started with agency theory that is applied to support this study, followed by a research framework and based on the theory discussed, the hypotheses are developed. Subsequently, the methodology employed is presented. Next, the results and analysis of the data are discussed. Finally, a summary of the findings and conclusions to this study, its implications and limitations as well as recommendations for future research are discussed.

13.2 Literature Review and Hypotheses Development

Firm Value

Eisenhardt (1989) indicated firm performance reflects the managers' efforts to engage in shareholders' interest. Therefore, firm's performance enhancement requires creative managers with ability to identify and take advantage of any opportunities to improve firm's performance. It is important for the managers to develop strategies, techniques and business tools that are appropriate and suitable for the firm.

Venkatraman and Ramanujam (1986) split firm's performance into three domains: financial performance, business performance and organizational effectiveness. Financial performance focuses on the utilization of simple outcome-based financial

indicators. Business performance comprises indicators of operational performance, i.e. non-financial, as an addition to indicators on financial performance. Performance can also be recognized and equated with effectiveness and efficiency or observed through the perspectives presented in different frameworks, such as the Balanced Scorecard or Performance Prism.

Financial statements provide multiple measurements to gauge the firm performance, such as net income (NI), return on assets (ROA) or return on equity (ROE). The firm performance reveals the achievement of the firm and used as a benchmark for investors to invest their funds. Prior to investment decision, investors normally would gauge the firm's financial health status. Investors will be looking at current figures of financial position and financial performance of a firm. Investors will investigate these figures by doing ratio analysis involving comparison one figures against another. The ratios will be assessed and will indicate a weaknesses or strengths of the firm's affairs. Ratio analysis produces useful information through comparison ratios over time and similar business. Malikova and Brabec (2012) stated that investors make investment decisions through financial analysis of financial statements.

Higher firm's performance will result in increases of the firm's stock market price, as investors will regard the firm's performance enhancement as a signal to invest funds and investors will respond positively. As a representation of the firm value, the increase of stock market prices reveals the firm value is also increasing. Therefore, the firm performance is the factor that will establish the firm value by means of stock price changes. Investors are rational; the value of the stock reflects the firm value including intrinsic value and the expectation of the firm's ability to increase the value of future prosperity.

Asiri and Hameed (2014) conducted investigation on the extent of financial ratios explaining the firm's value on all listed firms in Bahrain Bourse over the period of 1995–2013. The study used all the main categories of financial ratios such as profitability, liquidity, efficiency and debt. However, the related study discovered that ROA is the most determinant factor in explaining the market value. The researchers concluded that ROA as a profitability measure imparts signals to the investors.

Agency Theory

This study applied the agency theory in hypotheses development. Agency theory focuses on agency relationship between principal and agent as indicated by Jensen and Meckling (1976). In an organization, it is regarded as contractual relationship between the shareholders known as the principal who provides resources to the organization and the CEO and the top management known as the agent who manages the organization with the obligations to maximize the shareholders wealth. They will be given decision-making authority by the principal, and in return, good remuneration package and incentives will be offered to them. This is to encourage them to furnish the shareholders with information on the financial condition of the organization.

As the ownership and control of the organization are separated, this causes incomplete information and uncertainties to the shareholders. It leads to two agency problems of adverse selection and moral hazard (Eisenhardt 1989). The principal makes

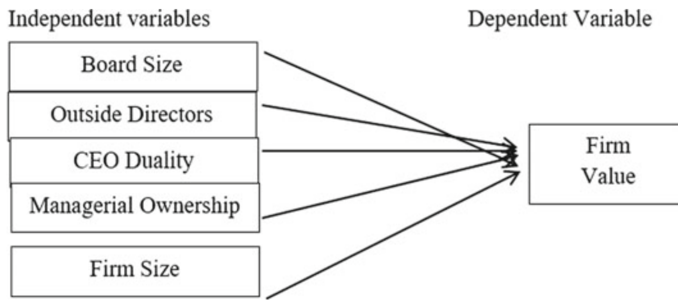

Fig. 13.1 Theoretical framework for corporate governance attributes and firm value

an adverse selection as the agent is not performing according to what he is paid for, whereas moral hazard happens as the agent is not performing their work to their ability due to their opportunistic behaviour. This is in line with positive accounting theory that managers' decisions-making is shaped by their self-interest.

Theoretical Framework

This study utilized the following theoretical framework (see Fig. 13.1) as the basis to support the theoretical arguments:

Corporate Governance

Good governance-related policies are important preconditions to improve company's performance (Valenti et al. 2011). Performance of directors as governing body might be motivated by the agency cost as a motivator in which for an example, good governance has a positive relationship with shareholders' return according to Gompers et al. (2003). If the firm is managed well and has good performance, of course the shareholders will be happy, and the directors might be awarded with good reputation or even offered post as a director in other firms by the shareholders as a reward of their good performance and reputation according to Yermack (1996).

Board Size

There are numerous investigations performed on the impact of board size and several organizational multitudes such as performance (Mak and Kusnadi 2005). There were previous outcomes that defend bigger boards are superior (Pierce and Zahra 1992) and a handful have differing outcomes (Goodstein et al. 1994). There were claims that bigger boards are ineffective as match up to lesser boards. Mak and Kusnadi (2005) disclose that bigger board size will adversely affect organization's value. The study indicated the adverse impact of bigger boards caused by interaction drawbacks that produce difficulties to synchronize and will be less successful. Mak and Kusnadi (2005) found a negative relationship between the board size and the firm value.

Huang and Wang (2014) utilized the agency theory to defend their investigations. The boards of directors are being comprehended as the vital system of corporate

control by the agency theory framework. The board scrutinizes and examines the agents to make certain that they perform corresponding to the principal's interest. Owing to the indecisive consequences of the association between board size and firm value in past studies, this paper establishes no anticipations in forming the first hypothesis:

13.3 Hypothesis

H1: There is a significant relationship between the board size and the firm value

Outside Directors

The board of directors is contemplated to be the first line of protection against the embezzlement of resources by management within an organization establishment. Nevertheless, the efficiency of boards, while they are dictated by inside directors, has been a contentious topic in the academic literature. These inside directors are contemplated fraction of the agency conflict as they take positions in the firm and consequently turn out to be a troop of individuals who ought to be scrutinized. Furthermore, management possesses a formidable control on the selection practice of the board. Consequently, the impartiality of corporate boards in decision-making has been doubted. It is contended that boards which have domination privileges upon corporate funds frequently misuse them (Berkovitch and Narayanan 1993). Outside directors are frequently utilized as a method to improve the board's independence. Their existence is assumed to develop the efficiency of internal controls (Weisbach 1988). Agency theory believes the existence of effective outside directors will reduce agency problems; therefore, it is recommended by the related theory for the independent directors to control the board of directors.

Significant positive relationship between outside directors and firm performance was recognized by Kim and Lim (2010). Conversely, Chen et al. (2005) and Yammeesri and Herath (2010) discovered the contrary. Leng (2004) and Mohd Ghazali (2010) discovered no relationship among outside directors and firm performance in Malaysia. In Malaysia, more attention was given on the actual impartiality of the outside directors (Mohd Ghazali and Weetman 2006).

The code of governance revised in 2012 could have heightened the corporate governance practices in Malaysia. On average most of the firms in Malaysia complied with the requirement of outside directors' domination (Abdul Rahman and Mohamed Ali 2006). Therefore, it is in line with agency theory recommendations that would benefit firms in terms of experience and monitoring service and expected to increase the firm value accordingly (Fama and Jensen 1983). Consequently, this paper aims to investigate the significant relationship between outside directors and firm value following the introduction of the code in 2012. The outside directors of Malaysian listed companies are anticipated to strengthen the corporate governance in the company's operation following the revised code. For this reason, the subsequent hypothesis is developed:

H2: There is a significant positive relationship between outside directors and firm value

CEO Duality

CEO duality is perceptive respond to the ideas of agency theory (Jensen and Meckling 1976) if the function of the board of directors is to genuinely observe the CEO and other executives. The integral inconsistency of interest among the agents and principals can simply be worsened by the absence of supervision as soon as more control is assigned to an individual, consequently compromising the board's independence. Alvarez and Svejenova (2005) and Finkelstein and D'Aveni (1994) assert that it is probable for an unrestricted dual CEO to engage in their personal selfishness to the impairment of the shareholders and stakeholders. Finkelstein and D'Aveni (1994) propose that CEO reinforcement arises once executives acquire extensive influence that they are capable to exploit the organization for their self-interest instead of those of shareholders, portraying the board incompetency.

The proponents of CEO duality recognize the unquestionable obligation for accountability; however, they contend that the advantages of combined leadership overshadow the adverse aspects. Splitting the positions of CEO and chairman of board (COB) possibly steers to misperception and shortage of clearness, both internal and external stakeholders. Additionally, Finkelstein and D'Aveni (1994) uphold that a unity of command empowers dual CEOs to operate rapidly and with certainty. Particularly, corresponding to Alvarez and Svejenova (2005), this is important in the event of compelling external hazard such as hostile takeovers, when the persistence of the organization requires the concentration of authority and intensified controls.

Heracleous (2001) examined the association among firm performance and dual CEO systems and resolved that it is immaterial to depict any similarities between them. The researcher asserts together with Daily and Dalton (1997) that splitting the CEO and COB positions does not essentially assure an effective scrutinizing purpose if the collective board is otherwise vulnerable. Alvarez and Svejenova (2005) claim further that splitting the functions of CEO and COB does not automatically provide the scrutinizing management anticipated by advocates of agency theory if the separation of errands among the two functions does not likewise transpire.

Generally, the academic analyses concerning the effect of CEO duality on the firm's value are questionable, even though several occupy compelling views on both aspects of the disagreement. Baliga et al. (1996) indicate that there is change in market reaction or firm performance caused by CEO duality and merely inadequate data to verify any association with long-term performance issues.

Duality role is rare in Malaysian corporations. Furthermore, the MCCG advocates firms to split the two functions to ensure stringent monitoring on the top management of the organization. Hence, the following hypothesis for this study is:

H3: There is a significant positive relationship between CEO duality and firm value

Managerial Ownership

Managerial ownership is the portion of shares owned by executive directors (Eng and Mak, 2003). There is a negative relationship between the managerial ownership and the agency issues (Jensen and Meckling 1976). This is possibly due to the fact that executives with higher shares ownership have more encouragements to enhance the firm value (Mohd Ghazali 2010). It is postulated by agency theory that the high managerial ownership leads to healthier firm value. On the other hand, Jensen and Ruback (1983) assert that the greater the managerial ownership, the more the likelihood that these managerial owners are making corporate decisions in a more conservative manner to safeguard their managerial positions. Several previous works empirically used the agency theory to determine an association of managerial ownership and firm value (Chen and Yu 2011; Mak and Kusnadi 2005; Mohd Ghazali 2010). Chen and Yu (2011) concluded that positive relationship between the director ownership and firm value is consistent with the agency theory grounds. On the other hand, Jelinek and Stuerke (2009) recorded adverse association between managerial ownership and firm value.

Mak and Kusnadi (2005) and Mohd Ghazali (2010) reported no association between managerial ownership and Malaysian firm value. The owner-managed firms in Malaysia could be inspired to be vigilant in ensuring better governance practices, which possibly lead to the improved corporate performance of those firms, following the revised code of corporate governance in 2012. Varied outcomes of preceding studies lead to the development of the following non-directional hypotheses:

H4: There is a significant relationship between managerial ownership and firm value

Methodology

Sample Selection

The sample used in this study includes top 100 public listed companies based on their market capitalization for the financial year 2013. They are from variety industries in Malaysia, explicitly, agriculture, construction, electricity and gas, hotel, health, manufacturing, mining, real estate and wholesale and retail trade.

Figure 13.2 depicts the top 100 companies among 10 industries in Malaysia based on market capitalization used as a sample in this study. Manufacturing industries were the largest portion represented by 21%. The following portions are 20% from real estate industries and 17% from trading industries. The next industries are agriculture 12%, constructions 11% and transportation 9%. Both hotel and mining industries are represented by 3%, and the smallest industry is represented by 2% from health industries.

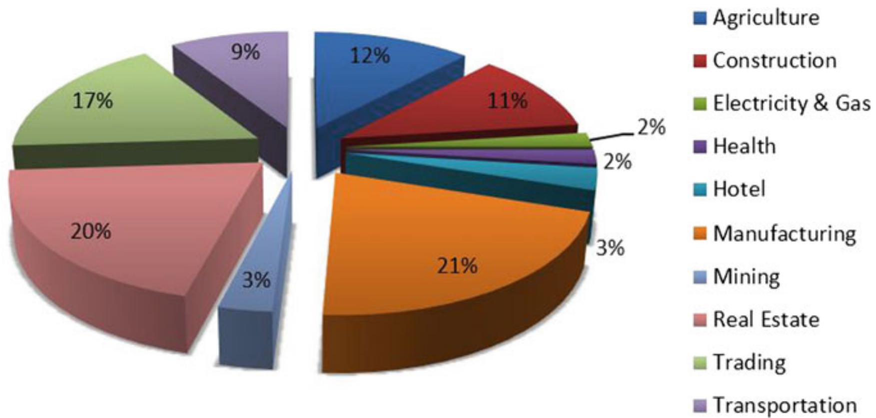

Fig. 13.2 Percentage of 100 companies classified by industry

13.4 Data Collection

Annual Reports

Firm value information could be obtained by numerous types of data tools, for instance annual report and as well as online report. Nevertheless, this study solely looks up to the corporate annual report as the focal data mine (Abdullah 2004; Amran and Che Ahmad 2011; Haniffa and Hudaib 2006). Henceforth, it is vital to emphasize that annual reports are easy to understand by the layman and also the most easily available reports (Smith 2007; Tilt 1994).

There is still a high degree of reliability in the annual reports given that the facts to be disclosed are subjected to certain statutory compliance and third-party auditing (Tilt 1994). Since this study is to observe the relationship of corporate governance on the firm value, the entire annual reports are to be analysed.

Measurements of Variables

Dependent Variable: Firm Value

Nanni et al. (1992) indicated traditionally the firm value is measured based on financial performance as investors will regard the firm's performance enhancement as a signal to invest funds. It is measured by utilizing various accounting ratios involving return on assets (ROA), return on equity and return on sales. Out of these gauges, ROA is significant measure used as it manifests the performance of the management and is not affected by the differential degree of leverage present in the firms. Moreover, numerous researchers depict financial firm value as ROA (Berman et al. 1999) which is positively correlated with the stock price.

Haniffa and Hudaib (2006) performed investigation on 347 companies listed in KLSE for a period of five years from 1996 to 2000 by using ROA. Marimuthu and

Kolandaisamy (2009) conducted a survey on ethnic diversity and firm performance. She performed the research on 100 non-financial companies under KLSE from 2000 to 2006 measured by ROA. Research was conducted by Sanda et al. (2008) assessing board independence on 205 Nigerian public listed companies from 1996 to 2004 by using ROA. Therefore, greater ROA will result in greater value creation for shareholders.

Independent Variables

The board size is usually determined by computing the total numbers of directors on the board corresponding among several precedent studies (Amran and Ahmad 2009, 2011; Coles et al. 2008). Henceforth, this study determined the board size based on the precedent studies by adding up the number of directors on board.

Outside director is referring to individual with no affiliation with the organization that the individual is serving as a director. As in the studies of Abdullah (2004), Amran and Che Ahmad (2011) and Coles et al. (2008), this study will use the same measurement dimension of outside directors based on the percentage of outside directors to board size. CEO duality is defined as individual serving two positions in the same organization as CEO as well as chairman of the board. It is measured based on binary variable coded as "1" if CEO duality and "0" otherwise (Abdullah 2004).

Mohd Ghazali (2010) measured managerial ownership based on proportion of shares owned by the directors and non-independent directors to total outstanding common shares. Therefore, this study measured managerial ownership based on past studies by dividing the number of shares owned by executive and non-independent directors to total outstanding common shares.

In this study, firm size is used as a control variable. It is anticipated that a positive relationship is shown between firm size and firm value. There are several ways in measuring the firm size such as using total asset (Amran and Che Ahmad 2011), number of employees (Amran and Devi 2008) and total sales of company (Amran and Haniffa 2011; Rashid et al. 2012). This study measured the firm size by using the total assets.

Multiple regression analysis was utilized to reveal how much of the variance of the dependent variable was explained by all the independent variables. Prior to multiple regression analyses, it is a prerequisite to check normality and multicollinearity concerns of the dependent and independent variables. The multiple regression model employed to analyse the relationship is as follows:

$$\mathrm{ROA}_{\mathrm{it}} = \beta_0 + \beta_1\ \mathrm{BSize}_{\mathrm{it}} + \beta_2\ \mathrm{OD}_{\mathrm{it}} + \beta_3\ \mathrm{CD}_{\mathrm{it}} + \beta_4\ \mathrm{MO}_{\mathrm{it}} + \beta_5\ \mathrm{FSize}_{\mathrm{it}} + \varepsilon_{\mathrm{it}}$$

where

FV	Firm value
BSize	Board size
OD	Outside directors
CD	CEO duality is a dummy variable, "1" if CEO is the chairman of the board, and "0" if otherwise

MO Management ownership
FSize Firm size
β_0 Constant (Intercept)
β_1 Coefficient of the regression model ($i = 0, 1, \ldots 0.5$)
ε Error.

13.5 Results and Discussion

Descriptive Statistics

Descriptive analysis on dependent variables and independent variables is exhibited in Table 13.1. Based on the descriptive analysis, the average ROA proxy of firm value among 100 public listed companies in Malaysia is 12.09% prior to the data transformation. As the data distribution is indicating abnormality resulting data transformation to normalize the data using log normal distribution. The result indicated the average ROA after the transformation is 2.16%. In comparison with the study conducted by Ahmad Haji (2014) on 170 non-finance firms in 2006 and 2009 to examine the impact before and after the introduction of revised MCCG 2007, the finding of this study shows upward trend. Ahmad Haji (2014) exposed that ROA for the year of 2006 is 4% and this dropped to 2% in 2009 because of global financial crisis in 2008 that affecting globally including Malaysia. The average number of board size in Malaysian companies derived from the descriptive analysis is about nine directors. This is in line with the previous studies of Lipton and Lorsch (1992) recommending optimal board size between seven and nine directors, as well as Amran and Che Ahmad (2011) ranging from seven to eight members.

Based on the analysis shown in Table 13.1, the mean result of outside directors in the sample is four. This represents 44% in percentage form, and the maximum

Table 13.1 Descriptive statistics of variables

	Minimum	Maximum	Mean	Std. Deviation
Firm value				
ROA	−1.77	4.39	2.1580	0.85698
Independent variables				
Board size	4	17	9.09	2.450
Outside directors	0	86	43.99	13.441
Managerial ownership	0	5	1.007	1.833
Control variable				
Firm size	11.58	20.58	15.3867	1.47217

$N = 100$

The ROA, managerial ownership and firm's size were transformed to ensure the normal data distribution prior to regression analysis

composition of outside directors in the board is 86% or seven. The analysis also indicates that 8% or eight companies having less than three numbers of outside directors and 61% having more than three. It indicates that majority of the Malaysian companies are observing the minimum of one-third requirements by MCCG.

The MCCG (2012) recommendation 3.4 states that the positions of chairman and CEO should not be held by the same person to avoid ineffective board in scrutinizing the managerial opportunism. The results shown in the descriptive analysis indicate that the firms selected in this study are complying well with the related recommendations. About 84% of the firms from the total samples are practicing non-duality leadership structure. This finding shows slight improvements in comparison with the previous studies by Abdullah (2004) and Haniffa and Hudaib (2006) of an average of 78.5 and 74.3% on non-duality leadership structure. This could be due to the introduction of MCCG (2012) as mentioned earlier.

Pearson Coefficient Correlation

Table 13.2 presents the Pearson's correlation matrix analysis for the dependent and continuous independent variables. It indicates no multicollinearity problem, as the correlations are relatively low. The highest correlation score in this study is 0.436.

Table 13.2 Pearson correlation matrix result

		ROA	BS	OD	CD	MO	FSize
ROA	Pearson correlation						
	Sig. (2-tailed)						
	N						
BS	Pearson correlation	−0.138					
	Sig. (2-tailed)	0.086					
	N	100					
OD	Pearson correlation	−0.07	−0.309**				
	Sig. (2-tailed)	0.474	0.001				
	N	100	100				
CD	Pearson correlation	0.035	−0.094	−0.073			
	Sig. (2-tailed)	0.367	0.175	0.235			
	N	100	100	100			
MO	Pearson correlation	−0.262**	−0.009	0.037	0.411**		
	Sig. (2-tailed)	0.004	0.463	0.358	0.000		
	N	100	100	100	100		
FSize	Pearson correlation	−0.436**	0.152	0.041	−0.020	−0.223*	
	Sig. (2-tailed)	0.000	0.066	0.342	0.421	0.013	
	N	100	100	100	100	100	

*Correlation is significant at the 0.05 level (2-tailed)
**Correlation is significant at the 0.01 level (2-tailed)

As suggested by Gujarati (1988), multicollinearity[1] only exists if the correlation is greater than 0.8.

Regression Analysis

This analysis was utilized to examine the level of firm value measured by ROA and to investigate the relationship between the corporate governance attributes and firm value. The summary of the multiple regression results is shown in Table 13.3.

Based on the result shown in Table 13.3, the adjusted R^2 value is 0.334 or 33.4% if expressed as a percentage meaning that the corporate governance attributes explain 33.4% of the variance in firm value. The results also revealed that the p-value of the three independent variables, namely chairman duality, managerial ownership and firm size, is 0.019, 0.000 and 0.000, respectively. The most significant variable that explains the variance of firm value is firm size since it has the highest beta of 0.534.

CEO duality is found to be positively significant with ROA at 5% significant level ($p = 0.019$). This result is not supporting the ideas of the agency theory that recommends the positions of a CEO and chairman of the board should be held by different individual or it might create ineffective board in monitoring the managerial opportunism. The result is consistent with Abor and Biekpe (2007) attaining positive association between CEO duality and firm performance. The possible reason for such association could be that CEO duality motivates an integrated and resilient management as the related CEO has all the information to divulge to the members of

Table 13.3 Multiple Regression Results

Variables	ROA		
	Coefficient (Beta)	t-statistics	P-Value
Intercept		8.750	0.000
BS	−0.028	−0.318	0.751
OD	0.040	0.456	0.649
CD	0.219	2.380	*0.019**
MO	0.473	−5.064	*0.000**
FSize	0.534	−6.202	*0.000**
R^2	0.368		
Adj. R^2	0.334		
F-statistics	10.947		
(P-value)	(0.000)*		
Df	(5, 94)		
N	100		

Note *Significant at 0.05 level

[1]None of the tolerance values are less than 0.1, and all the VIF values are less than 10, addressing no multicollinearity issues.

the boards. Therefore, the outcome of this finding is in support of the hypothesis 3 which predicts significant positive relationship between CEO duality and firm value.

The managerial ownership has negative significant relationship with ROA at 5% significant level with $p = 0.00$. The result of this finding is in support of the hypothesis 5 that states significant relationship between managerial ownership and firm value with no specific direction. However, it is not supporting the agency theory that managerial ownership is predicted to reduce agency costs and hence increased firm value. The adverse association could possibly be due to increase of directors' ownership exceeding than 50% as stated by Hu and Zhou (2008) that would result in negative impact on firm value.

Likewise, the firm size has negative significant relationship with ROA at 5% significant level ($p = 0.00$). The result of this analysis contradicts with the study's expectation. However, the finding confirms the result of Mohd Ghazali (2010) that firm size is negatively related to firm performance. This could be due to problems in coordinating the different functions or line of business.

The independent variable of board size (BS) is not significant related to ROA at 5% level with $p = 0.751$. The outcome of this study is contrary to the expectation of hypothesis 1 that significant non-directional association of board size and firm value. The result is not supporting studies conducted by Gan et al. (2013) utilizing the agency theory in their investigations.

Hypothesis 2 of this study is expecting significant positive relationship between outside directors and firm value. However, the finding derived from the analysis is not consistent with the hypothesis's expectation. Likewise, the studies by Dehaene et al. (2001) and Kim and Lim (2010) are not supported. Nevertheless, the finding is consistent with Mohd Ghazali (2010) who discovered no relationship among outside directors and firm performance. Additionally, this result is not supporting the agency theory's expectations of having outside directors that would enhance the firm value by having effective monitoring and control of firm's activities.

13.6 Conclusion

The first objective of this study is to examine the firm value among public listed companies in Malaysia following the introduction of revised MCCG 2012, whereas the second objective is to investigate the relationship of corporate governance attributes and firm value of public listed companies in Malaysia. The sample consists of top 100 public listed companies ranked based on their market capitalization.

The first objective was achieved through descriptive analysis, and the second objective was realized by engaging multiple regression analysis to investigate the relationship which is made on the 100 firms in the sample. The result indicated the average ROA after the transformation is 2.16%. Since the financial crisis in 2008, many transformations and developments on corporate governance guidelines have been introduced by Malaysian government. The revised guidelines include stern procedures on voting and the usage of technology in pull voting. To increase effectiveness

of process in the firm, evaluating the strategies and reports of the business units by the board is essential. In addition, the separation of position of CEO and COB in the firm reinforces the outside directors by having static portion in the board. Alnasser (2012) indicated that Malaysia is known as country with good investment protection quoted by the World Bank for four consecutive years from 2006 to 2010. Therefore, perhaps due to the Malaysian Government's efforts on corporate governance issues to maintain overall market confidence and attracting long-term investments due to mitigated agency risk reflected the finding on ROA in this study.

As for the second objective, the outcome from the multiple regression analysis reveals that CEO duality (positively), managerial ownership (negatively) and firm size (negatively) were showed significant relationship with ROA. These indicate that corporate governance attributes are affecting the firm value. The results are supported by Abor and Biekpe (2007), Ehikioya (2009) and Mohd Ghazali (2009). Nevertheless, the findings did not support the first two of the expected hypotheses while the last two of the predicted hypotheses are supported.

Based on the multiple regression analysis, the board size shows insignificant relationship with firm value. The result is inconsistent with the agency theory as the related theory states that the board of directors is a vital system of corporate control to ensure the management performs corresponding to the principal's interest.

The next result is outside directors; similarly, insignificant relationship with the firm value is shown. Based on agency theory, the presence of outside directors will enhance the independence of the board (Shleifer and Vishny 1997) and consequently improve the firm value. However, the finding of this study does not support the contention of the agency theory.

The result on CEO duality reported positive significant relationship on firm value. This is contrary to the hypothesis expectation and inconsistent with the agency theory. CEO non-duality will increase the effectiveness of the board in scrutinizing the managerial opportunism; as such, the firm value will increase. Unfortunately, the findings were not supporting the argument, possibly due to the reason that CEO duality will shape up the management into integrated and resilient body with comprehensive information furnished to the board. This finding is consistent with argument made by Yang and Zhao (2014) that CEO duality is beneficial to firm performance as competition intensifies. In addition, based on the studies of Abels and Martelli (2013) CEO duality is appropriate in complex business environment and especially if the CEO is the founder of the firm as the case of Malaysia that majority of Malaysian firms are family-controlled firms.

Agency theory framework believed that higher managerial ownership will be supplementary encouragements for management to extend firm value and consequently reduce agency issues. However, based on the result of multiple regression analysis, it is inconsistent with the above contention. Instead, significant negative relationship was recorded, suggesting managerial entrenchment effect (Mohd Ghazali 2010). In addition, perhaps the possible reason for this outcome could be due to the significant managerial ownership that causes the management exercising excessive risk-averse

approach (Fama and Jensen 1983). As a result, it may lead to lower investment in risky projects and encourages managers to practice safe approach that will lead to decrease in firm value.

Implications and Limitations of Study

This study is expected to contribute to the relevant literature to a certain extent. In general, this study stipulates the impact on the firm value following the introduction of revised MCCG 2012. This study attempts to investigate the association of corporate governance attributes on firm value. As a result, it will validate the effect of revised MCCG 2012 on firm value.

Furthermore, empirical findings yield conflicting and inconsistent results. This is contributed by different corporate governance structures resulting from different social, economic and regulatory environment of the countries. As Malaysian corporate governance code is taken from UK (developed countries), the effectiveness and applicability are doubted (Mohd Ghazali 2010). Therefore, updated awareness on corporate governance is very essential or otherwise would penalize the firms with adverse value. Additionally, the findings of this study will add value to existing literature on corporate governance. Moreover, it will provide several insights into Bursa Malaysia and other regulatory bodies. Subsequently, it will help future policy makers to formulate effective code of best practice for firm's value enhancement.

Numerous limitations and weaknesses encountered during the completion of this study. The first and foremost the sample used in this study is restricted to top 100 public listed firms in Malaysia ranked based on market capitalization. The result of this study would not be appropriate to be used to generalize the overall firm value of public listed companies in Malaysia in comparison with the total number of public listed companies in Bursa Malaysia. Furthermore, the sample selected excluding financial institutions; therefore, the findings may not extend across all industries in Malaysia. Apart from that, this study only investigates for 2013. As regulatory changes' effects will take after few years, it is expected the result may differ across different years if multiple years are used.

As this study engages restricted number of samples and in addition excludes of certain industries, i.e. financial industries, therefore it is recommended in future research of corporate governance attributes should consider a larger sample by considering all types of industries. Additionally, the findings of this study are based on the data of 2013. Perhaps multiple years should be used as the results may differ across different years. The targeted years should be further years of the implementation year for better insight on the impact of corporate governance attributes on firm value. Increased sample size with multiple years of data would provide a better understanding of the issue of corporate governance. Apart from that, other corporate governance variables should be considered particularly inclusion of external mechanism.

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Chapter 14
Measuring the Quality of Codes of Conduct in Greek Listed Companies

Michail Nerantzidis and Anastasios Tsamis

Abstract Even though there has been an increasing interest by scholars regarding the importance of corporate codes of conduct (COC) over the last decades, there has also been a rarity of research examining the quality of these codes. This study develops a framework and evaluates the intrinsic quality of such codes in the Greek context. Using data on 22 Greek companies listed on Athens Stock Exchange and according to the COC collected from their Web sites, we found that the average "conduct" rating is 66.51% under the dichotomous method and 63.93% under the PC unweighted method, with this difference being statistically significant. Moreover, we present evidence that the quality is higher in larger companies regardless of the used method for items weighing. All in all, our findings have exciting implications for academics and practitioners.

Keywords Index · Score · Rating · Codes of conduct · Code of ethics
Dichotomous method · PC unweighted method

14.1 Introduction

One of the primary objectives of codes of conduct (hereafter, COC) is to work as a communicative report and as an ethical structure for stakeholders (Erwin 2011: 535). This is stressed because it is well documented that COC has been found to play a major role in corporate sustainability. Even though a considerable number of studies have examined the content of such codes, only a few have considered the intrinsic quality of COC (Garegnani et al. 2015a: 541). For this reason, this study elevates this issue and extends the literature in the following ways:

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First, it constructs an index and evaluates the intrinsic quality of 22 Greek corporate COC. This sample even though represents a small percentage (i.e., approximately 12%) of Greek listed companies at the end of March 2015, it makes use of all the available COC that are posted on their Web sites. With this approach, we emphasize a tool that organizations use to enhance their transparency.

Second, the review of the literature shows that the majority of the prior studies examine the composition and structure of COC. However, this study is one of the few that deals with the evaluation of codes. For this reason, great attention has been paid to the increase of transparency, in the way that an index is constructed and applied.

Third, it highlights the differences between two approaches to measuring the quality of COC. Using the "dichotomous" and the partial compliance (hereafter, PC) unweighted method, we elevate an important methodological issue that has not been investigated extensively. As far as we know, the only study that delegates with this methodological issue are that of Tsalavoutas et al. (2010).

Based on the above, the Greek context offers an ideal setting for investigation for the following reasons. Specifically, both the recent economic and financial crises[1] may act as external mechanisms that could affect the CSR strategies of organizations. Hence, it is possible that companies would try to use the ethical COC as a device to develop regular communication routes and to protect their ethical values (Graafland et al. 2003). Additionally, most Greek listed firms on ASE are family owned and controlled (Nerantzidis 2015a). On that basis, the interest of this study is extended to all countries with the same characteristics.

The remainder of the paper is organized as follows. Literature review is presented in Sect. 14.2 and the hypothesis development in Sect. 14.3, while the research design is described in Sect. 14.4. Moreover, the results are discussed in Sect. 14.5 and the main findings are presented in Sect. 14.6.

14.2 Literature Review

14.2.1 Definitions of Codes of Ethics

There are a considerable number of companies that begin recognizing their responsibilities not only for their legal behavior but they are moral, too. Indeed, this illustrates the need for companies to be adapted to the challenging institutional environment.

However, what does the corporate's COC mean? In particular, there has been broad interest by academic community regarding the importance of COC over the last decades, and some used terms describe the same "issue." For instance, corporate codes of ethics or codes of conduct are also mentioned as rules of conduct, codes of practices, ethical codes, value statements, corporate credos, mission statements, or guidelines for behavior (Stevens 1994, 1997; Murphy 2005; O'Dwyer and Madden

[1]A plethora of scandals have been revealed in the capital market (for more, see Nerantzidis and Filos 2014: 286).

2006: 218; Ki and Kim 2010: 224). However, there is no commonly accepted definition concerning the purpose, the use, and the impact of a corporate COC (Frankel 1989; Stevens 1994; Kaptein 2004; Stevens 2008; Messikomer and Cirka 2010).

For instance, Melrose-Woodman and Kverndal (1976) define COCs as statements that set rules of conduct concerning either employees' responsibilities, relations with stakeholders, or any other third parties (Langlois and Schlegelmilch 1990; Carasco and Singh 2003). Additionally, Pitt and Groskaufmanis (1990) characterize corporate COC as every written statement of policy, ethics, law, and some combinations, to describe employees' obligations.

In the same direction, Stevens (1994) refers to COC as messages through which companies shape employees' behavior. In other words, a corporate COC is every written guideline concerning ethics, law, or policy and determines any permissible corporate employees' (mis)behavior. This can also be supported by the definition of Kaptein and Schwartz (2008: 113) who mention that COC is a distinct and formal document that contains some guidelines on behavior toward employees, stakeholders, or society in general.

Based on the above, we may understand that the differences among definitions could be explained by the different viewpoints of the authors. However, we believe that a representative definition is that of Schwartz's (2001: 248), who describes corporate COC as the written, precise, and formal report that consists of ethical practices to direct employees.

14.2.2 The Scope of the Corporate Code of Conduct

From the emergence of the corporate COC, considerable debate about its role has begun. In particular, many perspectives have been mentioned in the literature regarding the role and effectiveness of a COC. More specifically, many scholars describe the necessity of COC as something broader than any legislation (Chatterjee and Lefcovitch 2009: 26). In that sense, Maitland (1985: 132) mentions that it would be more preferable for the firms to depend on internal mechanisms to regulate corporate behaviors rather than state intervention.

On that basis, scholars believe that COC (i) enhances company's reputation, brand image, and CSR, (ii) helps companies to achieve their goals, (iii) signals company's commitment to ethical behavior to stakeholders, (iv) creates a cohesive corporate culture by implementing a permissible employee behavior, (v) operationalizes company's values and norms, (vi) helps the company to avoid illegal actions. and (v) enhances development prospects (White and Montgomery 1980; Gavin et al. 1990; Lefebvre and Singh 1992; Werner 1992; Leeper 1996; Farrell et al. 2002; Kolk and van Tulder 2002; Carasco and Singh 2003; Singh et al. 2005; Ki and Kim 2010).

Consequently, a corporate COC should be a workable tool which shapes an ethical climate and corporate culture (Raiborn and Payne 1990; Adams et al. 2001; Long and Driscoll 2008; Messikomer and Cirka 2010; Erwin 2011) and offers a codification of ethical standards, not only to encourage responsible behavior but also to avoid the

destructive consequences of an unethical one (Lindsay et al. 1996; Costello 2000; McKinney et al. 2010).

In contrast, there is a minority of scholars that claimed COCs are not such powerful tools to deter unethical practices (Callan 1992; Allen and Davis 1993; Cleek and Leonard 1998; Stevens 1999; Marnburg 2000; Schwartz 2000; Healy and Iles 2002; McKendall et al. 2002; Snell and Herndon 2004), since they are full of "meaningless" rhetoric (Wright 1993; Ki and Kim 2010).

Therefore, we believe that it is essential for a successful company not only to provide the audience with a written corporate COC (Harker and Harker 2000) but also to make the code more effective (Ki and Kim 2010). This implies that managers should recognize the real need for this ethics statement in corporate sustainability.

14.2.3 Prior Empirical Studies

Table 14.1 briefly describes the reviewed studies that examined COC. Mainly, we tried to collect papers from several journals indexed by Blackwell, Elsevier Emerald, JSTOR, ScienceDirect, and Springer. Our search used keywords including "codes of conduct" and "codes of ethics." We also consulted specialized journals such as "Journal of Business Ethics" and "Business Ethics: A European Review." Following this process, we gathered 28 research articles between 1988 and 2015, as illustrated in Table 14.1. It should be referred that these articles were clustered according to the subject area, as mentioned in the Academic Journal Guide 2015 (ABS 2015), following an ascending chronological order of the year of publication.

The third column (entitled "Region") highlights the region that every prior study is referred to. As we can see, from the studies selected, 17 were single country and 11 were cross-national, with 6 of them referred to USA (e.g., Hite, Bellizzi and Fraser 1988; Beneish and Chatov 1993; Gaumnitz and Lere 2002; Ki and Kim 2010), 5 to Canada (e.g., Lefebvre and Singh 1992; Lindsay et al. 1996; Donker et al.2008), 6 were worldwide (e.g., Kaptein 2004; Halff 2010; Erwin 2011), 5 compared three regions together (Wood 2000; Singh et al. 2005; Callaghan et al. 2012), 2 referred to Italy (Garegnani et al. 2015a, b) and to Australia (Farrell and Cobbin 1996; Farrell et al. 2002), and 1 to Ireland (O'Dwyer and Madden 2006) and UK (Schlegelmilch and Houston 1989).

The fourth column (entitled "Sample") shows the number of companies and/or COC analyzed in each study. As illustrated, the majority of studies examined a great number of listed firms. However, there are some exceptions such as the Schwartz's (2001) study that used only 4 large companies, the Farrell et al.'s (2002) study that used only 8 large companies, and the Gaumnitz and Lere's (2002) study that used 15 professional business organizations. This means that the purpose of each research can explain the variation of the sample used.

The fifth column (entitled "Categories") denotes the number of categories and items used in each study. Similarly, with the sample size, we can observe a variation

Table 14.1 Prior empirical studies

Authors	Subject areas/ABS ranking	Region	Sample	Categories/items	Methodology				Findings
					Rating (index)	Questionnaire	Content analysis	Interviews	
Hite et al. (1988)	GMESR/3	The U.S.	67 firms	41 topics			●		It was found that the most usual themes were inappropriate accounting, conflict of interest between different parties, dealing with public officials and private information
Lefebvre and Singh (1992)	GMESR/3	Canada	75 firms	61 criteria according to four levels		●	●		They found that the aim of the Canadian Codes of Conduct was to protect the organizations
Lindsay et al. (1996)	GMESR/3	Canada	171 firm	Four key variables		●			They found that a large number of firms use codes of ethics
Weaver et al. (1999)	GMESR/3	The U.S.	254 firms	Eight major areas		●			They found that most organizations put emphasis on the low cost and the compliance with the codes of ethics and the policies for emblematic reasons

(continued)

Table 14.1 (continued)

Authors	Subject areas/ABS ranking	Region	Sample	Categories/items	Methodology				Findings
					Rating (index)	Questionnaire	Content analysis	Interviews	
Wood (2000)	GMESR/3	U.S., Canada & Australia	279 firms (83 COC were analyzed)	46 questions		●			It was found that USA, Canada, and Australia are motivated by the same reasons in the development of codes of ethics
Schwartz (2001)	GMESR/3	Canada	Four large firms (57 in-depth semi-structured interviews)	Three research questions according to 8 metaphors				●	It was found that the codes of conduct impact on the way the market participants act
Somers (2001)	GMESR/3	The U.S.	613 management accountants	Four major areas		●			It was found that the role of the codes of conduct was not to present the unethical practices that were noticed but to show that firms' malfeasances are limited
Gaumnitz and Lere (2002)	GMESR/3	The U.S.	15 professional business organizations	Nine major categories of ethical themes			●		They found that codes of conduct depict the most commonly observed ethical practices

(continued)

Table 14.1 (continued)

Authors	Subject areas/ABS ranking	Region	Sample	Categories/items	Methodology				Findings
					Rating (index)	Questionnaire	Content analysis	Interviews	
Kaptein (2004)	GMESR/3	Worldwide (17 countries)	200 largest firms in the world, using the SCOPE Core Company List	Five categories			●		It was found that out of 2000 firms globally, almost half of them had a code of ethics
O'Dwyer and Madden (2006)	GMESR/3	Ireland	142 firms	16 questions		●			They found that since 1995 firms in Ireland have increased the adoption of codes of ethics
Singh (2006)	GMESR/3	Canada	140 firms (80 COC were analyzed)	31 questions		●	●		It was found that the codes of ethics were focused on the firms' behaviors that were against them
Donker et al. (2008)	GMESR/3	Canada	240 firms	Ten items	●				They found that the values of the firms and their performance are positively related

(continued)

Table 14.1 (continued)

Authors	Subject areas/ABS ranking	Region	Sample	Categories/items	Methodology				Findings
					Rating (index)	Questionnaire	Content analysis	Interviews	
Ki and Kim (2010)	GMESR/3	The U.S.	1891 public relation firms	Three broad areas			●		They found that on average only 40% of the public relations agencies had code of ethics and the themes that were most referred were “relationship with clients,” “strategy,” “function,” and “outcomes”
Erwin (2011)	GMESR/3	Worldwide	392 International firms	Eight critical components	●				It was found that firms ranked at the top of CSR practices had the most qualitative codes of ethics and thus there is a positive relationship between these two variables, i.e., code’s quality and CSR performance
Callaghan et al. (2012)	GMESR/2	Australia, Canada & United States	500 largest firms	2 categories/9 measures		●			They found that despite the fact that these three countries have (social and economic) similarities they value differently the ethical practices of the firms

(continued)

Table 14.1 (continued)

Authors	Subject areas/ABS ranking	Region	Sample	Categories/items	Methodology				Findings
					Rating (index)	Questionnaire	Content analysis	Interviews	
de Waegeneer et al. (2015)	GMESR/3	Worldwide	119 sports clubs within six different sports disciplines	Four components	●	●	●		They found that the majority of the codes of ethics put emphasis on integrity and solidarity
Garegnani et al. (2015a)	GMESR/3	Italy	248 listed firms	6 categories/40 items	●				They found that the larger firms usually comply with ethical practices
Langlois and Schlegelmilch (1990)	IBAS/4	3 European countries (France, UK & West German)	189 largest French, British and West German firms	Seven subject subcategories		●	●		They found that USA firms follow the codes of conduct more often than European
Singh et al. (2005)	IBAS/4	Australia, Canada & Sweden	78 Australian, 80 Canadian and 39 Swedish firms codes of ethics	Seven categories			●		They found that the codes of ethics in Australia and Canada are almost common, since their cultures, as well as their history, are alike

(continued)

Table 14.1 (continued)

Authors	Subject areas/ABS ranking	Region	Sample	Categories/items	Methodology				Findings
					Rating (index)	Questionnaire	Content analysis	Interviews	
Farrell and Cobbin (1996)	PSCH/3	Australia	225 firms	3/30 items		●	●		They found that codes of ethics in UK focus more on values that put emphasis on customers and community while these in USA on customers, insider trading, and equality
Farrell et al. (2002)	PSCH/3	Australia	8 large firms (900 employee and 35 top management questionnaires)	11 criteria/49 questions	●	●			They found that firms' ratings and ethical practices are not related
Schlegelmilch and Houston (1989)	MRK/3	U.K.	74 firms	Seven major areas		●			They found that the large firms in UK were in favor of depicting the ethical practices into a code of conduct, and thus, almost the half firms of the sample (i.e., the top 200 firms) have released such documents

(continued)

Table 14.1 (continued)

Authors	Subject areas/ABS ranking	Region	Sample	Categories/items	Methodology				Findings
					Rating (index)	Questionnaire	Content analysis	Interviews	
Beneish and Chatov (1993)	ACC/3	The U.S.	160 firms	12 ethical dimensions/145 variables	●				They found a positive relationship between the content of codes of ethics and publicity, number of employees and capital intensity, while they found a negative relationship between content and leverage
Malloy and Fennell (1998)	SES/4	Worldwide	40 codes of ethics from the tourism industry	Six categories			●		They found that the codes of conduct were in general terms ethical
Garegnani et al. (2015b)	FIN/2	Italy	248 listed firms	6 categories/40 items	●				They found that the ownership structure of a firm impacts on the quality of the codes of conduct

(continued)

Table 14.1 (continued)

Authors	Subject areas/ABS ranking	Region	Sample	Categories/items	Methodology				Findings
					Rating (index)	Questionnaire	Content analysis	Interviews	
Carasco and Singh (2003)	N.L.	Worldwide	World's 32 largest transnational corporations (32 COC were analyzed)	Ten major areas/64 categories		●	●		They found that firms put more emphasis on practices against them (i.e., conflict of interest), although they care about the practices on behalf of them as well
Bondy et al. (2004)	N.L.	Canada, UK & Germany	75 firms (the top 25 firms per country)	Five major areas			●		They found that firms in Canada do not put emphasis on the necessity of making the codes of ethics available on their sites
Halff (2010)	N.L.	Worldwide	338 listed firms	Three categories			●		It was found that the majority of the codes of ethics globally do not mention issues such as the oppositions between compulsory practices and the importance of each of them

Note The second column indicates the Subject Areas of the following Acronyms: (i) General Management, Ethics, and Social Responsibility (GMESR), (ii) International Business and Area Studies (IBAS), (iii) Psychology (Organizational) (PSCH), (v) Marketing (MRK), (vi) Accounting (ACC), (vii) Sector Studies (SES), (viii) Finance (FIN), and (ix) not listed in ABS (2015) (N.L.)

between the number of criteria as well as the items used in each study. This indicates that there is no consensus in the literature regarding the investigation of COC.

The sixth set of columns (entitled "Methodology") displays the method used for each study. It was found that most of the research studies used a questionnaire (14 out of 28), while others prefer the content analysis (8 out of 28), the index construction (5 out of 28), and the interviews (only one study), as well. However, some studies used more than one methodology (7 out of 28).

The final column (entitled "Findings") presents the main results of these empirical studies, with the main conclusion being that the number of companies using COC increases over the time.

14.3 Theoretical Background and Hypothesis Development

Based on the literature, there is an increasing rate of studies that construct an index in financial reporting discipline as a way to measure the quality of a code (i.e., COC, corporate governance code) or a standard (i.e., International Financial Reporting Standards); however, there are few that criticize the way of construction (Aguilera and Desender 2012; Nerantzidis 2012; Tsalavoutas et al. 2010).

The most critical issue, which academics has not yet paid attention to, is the method selected to measure the overall score. This means that when researchers choose a method, they do not examine the accuracy of their results (i.e., they do not use alternative measurement instruments as a robustness check) (e.g., Black 2001; Klein et al. 2005; Garay and González 2008). This issue may have significant implications for future studies, since different weighting methods may produce different overall scores. Pointing this out, Tsalavoutas et al. (2010) examined the characteristics of dichotomous and PC unweighted method and their results revealed that the dichotomous method produces significantly higher scores than the PC one. Under this assumption, we examined the score differences in COC quality between these two methods, based on the following hypothesis:

H_1 Dichotomous approach statistically produces higher scores than the PC method.

Also, we focused on the hypothesis that the firm size may influence the quality of the COC. Although all companies emphasize on their social dimension to survive (Spence et al. 2000; Spence and Lozano 2000; Tilley 2000; Garegnani et al. 2015a), larger companies are mostly interested in the impact of the unethical or unlawful conduct on their reputation. Accordingly, they have more advanced managerial cultures and more available financial resources to place the implementation of a high-quality COC (Garegnani et al. 2015a). Under this assumption, we examined the following set of hypotheses:

H_{2a} The quality scores of the companies in the FTSE Athex Large Cap do not differ from the quality scores of the companies in the FTSE Athex Mid Cap.

H_{2b} The quality scores of the companies in the FTSE Athex Large Cap do not differ from the quality scores of the companies in the Rest category.

H_{2c} The quality scores of the companies in the FTSE Athex Mid Cap do not differ from the quality scores of the companies in the Rest category.

14.4 Research Design

The purpose of this study is to evaluate the quality of COC in the Greek listed companies. For this reason, we followed the practice of the previous studies (e.g., Wallace and Naser 1995; Garegnani et al. 2015a), to construct an index that could measure the compliance with the different items that are referred in COCs.

Thus, an empirically driven approach was adopted for the index construction, which impelled a pilot study to be conducted to build the framework of the evaluation items. Both authors read a sample of 10 randomly selected COC (out of 22 finally examined) to better understand their content. Afterward, having the models of Garegnani et al. (2015a) and Gavin et al. (1990) as a benchmark, they thoroughly discussed with each other to reach consensus on the items and categories that could be adopted and adapted for the construction of the Greek index.

With this procedure, 49 individual quality indicators were identified. We then classified these items into seven categories: *commitment from the top*, *style, and availability*, *whistle-blowing*, *relations to stakeholders*, *workforce behavior*, *compliance procedures*, *legal items* (see appendix). Then, the overall COC quality was calculated using two methods: (i) the dichotomous and (ii) the PC unweighted index (see Fig. 14.1).

According to the dichotomous methodology, we coded value 1 (presence) or 0 (absence) to each item, and the overall score was calculated as the ratio of the total items that are presented to the total items included in the index:

$$D_j = \frac{\sum_{i=1}^{n} C_i}{n} \tag{14.1}$$

where D_j is the total quality score for each company, $\sum_{i=1}^{n} C_i$ is the sum of the items presented and n is the number of the items included in the index.

Based on the second method (the "PC unweighted"), we equally weighted all the items within each category to calculate an average score (see Street and Gray 2001; Florou and Galarniotis 2007: 984). More specifically, the weighted average score was calculated as:

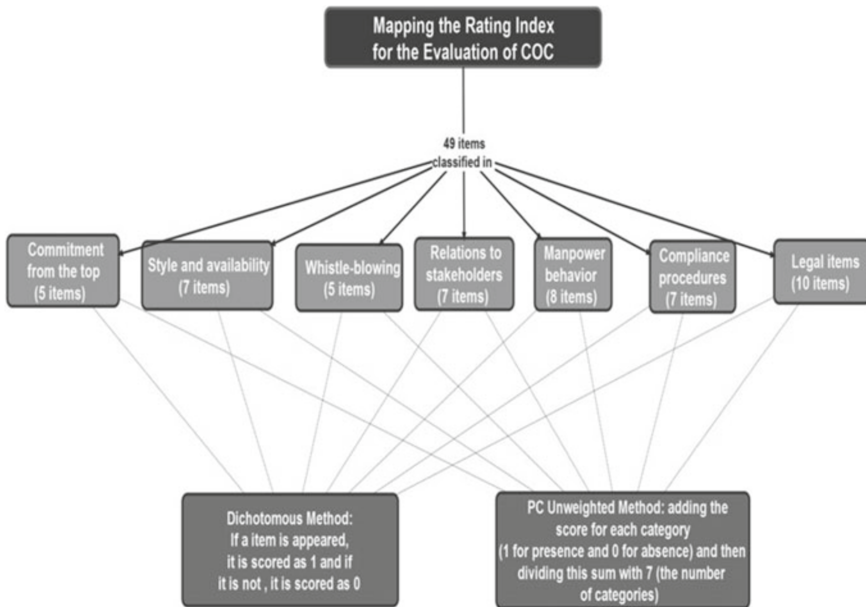

Fig. 14.1 Rating index

$$PC_j = \frac{\sum_{i=1} X_i}{R_j} \tag{14.2}$$

where PC_j is the total quality score for each company, X_i is the score for each category and R_j is the total number of relevant categories for each company (for more, see Tsalavoutas et al. 2010: 215–216).

14.5 Empirical Result

This section presents the quality of the COC in the Greek listed companies. Firstly, the statistics of the mean number of COC pages and their quality based on the company's size are presented. Then, the overall score as a weighted and unweighted index is calculated, and the significance of the differences is analyzed. Lastly, the difference in COC quality among the capitalization groups is statistically examined, and the results are described.

14.5.1 Mean Number of COC Pages and Their Quality Based on the Company's Size

In this part of the analysis, we examined the mean number of COCs and their quality, both for the total sample and per capitalization group. Also, we emphasize the number of illustrated pages, as a percentage of the overall COC pages.

From Table 14.2, it becomes evident that large companies have a higher average number of COC (a mean number of 18.375 compared to the 11 and 12.625 of the Mid-caps and the Rest companies) with higher quality. This could be best explained either by the opportunity cost of each page (as expressed by Striukova et al. 2008 and Nerantzidis 2015b) or by the fact that larger companies have more financial resources to place to the adoption of COC with higher quality (Garegnani et al. 2015a). Also, larger firms have higher compliance risks, and thus the consequences of unethical and unlawful conduct are quite crucial to their reputation (Garegnani et al. 2015a).

Finally, as for the percentage of the illustrated pages, we may observe that this is higher in large companies (33.53% compared to the 4.23 and 4.53% of the Mid Cap and Rest companies respectively); a fact that implies that these firms are more interested in the appearance of their COCs.

Table 14.2 COCs' mean pages and quality

	Large Cap (n = 8)	Mid Cap (n = 6)	Rest (n = 8)	Overall (n = 22)
Number of total pages	18.375	11	12.625	14.272727
Number of illustrated pages	6.375	0.5	0.625	2.6818182
(as % of the total pages)	*33.53%*	*4.23%*	*4.53%*	*15.00%*
High quality (number of firms)	6	2	5	13
Moderate quality (number of firms)	1	3	2	6
Low quality (number of firms)	1	1	1	3

14.5.2 COC Quality Under Dichotomous and PC Approach

In this part, we calculated the COC quality scores using a weighted and an unweighted index. Through this practice, we intend to investigate the differences between the final scores produced under each method and how these may affect the results.

From Table 14.3, it becomes evident that the COC quality in the Greek listed companies is relatively low; a fact that is independent of the method used to calculate the quality scores. However, what discriminates the weighted index (dichotomous) from the unweighted (PC method) is the distribution of the COC quality scores. Although the average quality score under dichotomous is marginally higher than this of the PC method (66.51% under the dichotomous approach compared to the 63.93% under the PC), when someone looks at the frequencies, the results differentiate. For example, when the quality scores are measured with the PC method, a higher percentage of companies lie between 40 and 49. Respectively, when the quality scores are measured with the dichotomous approach, a higher percentage of companies lie between 50 and 59. These findings are in line with prior literature, which indicates that the dichotomous approach produces higher scores than the PC method (Street and Gray 2001; Tsalavoutas et al. 2010; Tsalavoutas 2011)

Additionally, it has been pointed out that, apart from the differences in the scores, what also changes, based on the method employed, is the ranking of the companies (Tsalavoutas et al. 2010; Tsalavoutas 2011). For this reason, in Table 14.4 we present

Table 14.3 Frequency and distribution of the COC quality scores

Score	Dichotomous		PC	
40–49	1	*4.55%*	4	*18.18%*
50–59	6	*27.27%*	4	*18.18%*
60–69	6	*27.27%*	6	*27.27%*
70–79	8	*36.36%*	7	*31.82%*
80–89	1	*4.55%*	1	*4.55%*
90–100	0	*0.00%*	0	*0.00%*
N	**22**		**22**	
Mean	0.6651		0.6393	
Median	0.6837		0.6449	
SD	0.1053		0.1193	
Min	0.49		0.43	
Max	0.86		0.86	
Skewness	−0.153		−0.11	
Kyrtosis	−1.011		−0.896	
Kolmogorov–Smirnov Z	0.512		0.442	
Normality	Yes		Yes	

Table 14.4 Comparison of the COC quality scores between the two methods

Company	Dichotomous		PC	
	Score	Ranking	Score	Ranking
A	0.79592	1	0.79235	1
B	0.4898	11	0.42704	11
C	0.73469	3	0.70714	4
D	0.77551	2	0.77551	2
E	0.5102	9	0.47959	8
F	0.59184	5	0.5699	5
G	0.5102	10	0.47449	10
H	0.59184	6	0.56684	6
I	0.73469	4	0.72908	3
J	0.53061	8	0.47806	9
K	0.55102	7	0.50663	7
Median	0.59184		0.56684	
Mean	0.61967		0.59151	

a random sample of 10 companies.[2] Moreover, their relative score (i.e., their ranking order) under both methods. These results show that although the scores under the two methods change, the ranking order slightly differs. This could be inferred since the only change is the order between companies C and I and companies E and J, with no clear evidence of one method to distinguish better the divergence between the scores. More specifically, the divergence of the quality scores between companies C and I, is more evident under the dichotomous approach rather than the PC, while the divergence between companies E and J are more evident under the PC. This means that, although companies C and I seem to have the same quality when the scores are calculated with the dichotomous approach, company C outweighs company I when the scores are calculated with the PC method. Respectively, although company E slightly outperforms company J due to the PC method's scores, company J has better quality when the scores are calculated using the dichotomous approach. These contradictory results are mostly based on the index construction and the number of the variables that compose the different categories.

Since each method has been proven to produce different quality scores (both aggregate and relative) we statistically tested these differences. Thus, employing the Kolmogorov–Smirnov test with a 95% confidence interval, we found that the quality scores under both methods are usually distributed.[3] Moreover, we, therefore, tested the hypothesis H_1[4] using "paired-samples t-test." Table 14.5 presents the results of

[2]For this sample, we at first ranked the companies from the higher firm size (based on their total assets) to the lower and we then randomly choose 10 (using excel spreadsheets to produce random numbers).

[3]In this test, the null hypothesis H_0 is that *the variable of the quality scores is normally distributed*.

[4]In this test, the null hypothesis H_0 is that *there is no difference between the scores of the dichotomous and PC approach* and we reject or accept this hypothesis in a 95% confidence interval.

Table 14.5 T-test for mean differences between the two methods

Capitalization	Dichotomous	PC	t-test results
FTSE Athex Large Cap	0.7041	0.6837	
Kolmogorov–Smirnov Z	*0.793*	*0.692*	*t = 2.586*
Asymp. Sig. (2-tailed)	*0.555*	*0.725*	*Sig. (2-tailed) = 0.036*
Normality test for difference:	***Kolmogorov–Smirnov Z***	**0.610**	
Asymp. Sig. (2-tailed)		**0.850**	
FTSE Athex Mid Cap	0.6837	0.6611	
Kolmogorov–Smirnov Z	*0.509*	*0.574*	*t = 4.176*
Asymp. Sig. (2-tailed)	*0.958*	*0.896*	*Sig. (2-tailed) = 0.009*
Normality test for difference:	***Kolmogorov–Smirnov Z***	**0.576**	
Asymp. Sig. (2-tailed)		**0.895**	
Rest companies	0.6122	0.5785	
Kolmogorov–Smirnov Z	*0.391*	*0.502*	*t = 9.042*
Asymp. Sig. (2-tailed)	*0.998*	*0.963*	*Sig. (2-tailed)=0.000*
Normality test for difference:	***Kolmogorov–Smirnov Z***	**0.735**	
Asymp. Sig. (2-tailed)		**0.653**	
Mean	0.6651	0.6393	
Median	0.6837	0.6449	
For the total sample:			
Kolmogorov–Smirnov Z	*0.512*	*0.442*	*t = 7.213*
Asymp. Sig. (2-tailed)	*0.956*	*0.990*	*Sig. (2-tailed) = 0.000*
Normality test for difference:	***Kolmogorov–Smirnov Z***	**0.561**	
Asymp. Sig. (2-tailed)		**0.912**	

these tests either overall or by capitalization category indicating that in every case the dichotomous produces significantly higher scores than the PC method; a fact that is in line with the prior studies (e.g., Tsalavoutas et al. 2010; Tsalavoutas 2011).

These findings show how sensitive the scores are based on the method used and the items included in each index category and imply that researchers should employ both methods, as a robustness check, to avoid producing misleading results.

14.5.3 COC Quality per Capitalization

In this subsection, we investigate the differences in quality scores based on the company's capitalization, since the more significant the company, the better its COC quality (Garegnani et al. 2015a). The results of Table 14.6 show that the companies in FTSE Athex Large Cap have the highest overall COC quality (70.41%), followed by the companies in the FTSE Athex Mid Cap (68.37%) and then the companies lying in the *Rest* category (61.22%); with the latter having the lowest quality in almost every category (apart from the *Legal items*).

Moreover, the companies in the FTSE Athex Large Cap outperform those in the FTSE Athex Mid Cap in 4 out of 7 categories; a fact that is based principally on the different importance that each company attributes to each category. For example, companies in the FTSE ASE Large Cap pay more attention to the *relations with stakeholders* (its relative importance among the 7 categories is 14.28% and is ranked 4th) than companies in the FTSE Athex Mid Cap do (its relative importance among the 7 categories is 10.89% respectively and is ranked 6th). These findings do not

Table 14.6 COC quality descriptives

	FTSE Athex Large Cap	FTSE Athex Mid Cap	Rest companies	Average across each cap	Rank (highest compli-ance)	Rank (more important)
1. Commitment from the top	45.00%	36.67%	22.50%	34.55%	7	
as % of the total	*6.08%*	*5.05%*	*3.90%*	*5.01%*		7
2. Style and availability	82.14%	71.43%	71.43%	75.32%	3	
as % of the total	*16.65%*	*14.71%*	*16.60%*	*16.10%*		3
3. Whistle-blowing	62.50%	73.33%	55.00%	62.73%	4	
as % of the total	*8.33%*	*11.06%*	*8.91%*	*9.29%*		6
4. Relations with stakeholders	69.64%	52.38%	48.21%	57.14%	5	
as % of the total	*14.28%*	*10.89%*	*11.15%*	*12.22%*		4
5. Workforce behavior	48.44%	45.83%	39.06%	44.32%	6	
as % of the total	*11.56%*	*10.93%*	*10.33%*	*10.94%*		5
6. Compliance procedures	82.14%	88.10%	75.00%	81.17%	2	
as % of the total	*16.88%*	*18.55%*	*17.55%*	*17.58%*		2
7. Legal items	88.75%	95.00%	93.75%	92.27%	1	
as % of the total	*26.22%*	*28.80%*	*31.56%*	*28.86%*		1
Total COC quality	**70.41%**	**68.37%**	**61.22%**	**66.51%**		

allow us to say that the score difference between the companies in the FTSE Athex Large Cap and the companies in the FTSE Athex Mid Cap is clear. However, the overall scores reveal some interesting conclusions regarding the relative importance of each category, showing that all companies are more interested in the *Legal items*, the *Compliance procedures* and the *Style and availability* and less in the *Commitment from the top*.

Since the findings of Table 14.6 are controversial, we performed a "paired-samples t-test" to confirm whether the differences in the scores among the companies of different capitalization are statistically significant. Accepting the null hypothesis of the Kolmogorov–Smirnov test for the normality of the scores distribution (see Table 14.7), we investigated the H_2 set of hypotheses (i.e., H_{2a}, H_{2b}, H_{2c}).

Table 14.7 T-test for mean differences between the capitalization

Capitalization		FTSE Athex Large Cap	FTSE Athex Mid Cap	Rest companies
Method A: Dichotomous				
Kolmogorov–Smirnov Z		*0.793*	*0.509*	*0.391*
Asymp. Sig. (2-tailed)		*0.555*	*0.958*	*0.998*
t-test[a]:	Levene's test	F = 0.542	Sig. = 0.476	
t-test for equal variances		t = 0.315	Sig. (2-tailed) = 0.758	
t-test[b]:				
Levene's test		F = 3.731	Sig. = 0.074	
t-test for equal variances		t = 1.790	Sig. (2-tailed) = 0.095	
t-test[c]:				
Levene's test		F = 1.578	Sig. = 0.233	
t-test for equal variances		t = 1.704	Sig. (2-tailed) = 0.114	
Method B: PC				
Kolmogorov–Smirnov Z		*0.692*	*0.574*	*0.502*
Asymp. Sig. (2-tailed)		*0.725*	*0.896*	*0.963*
t-test[a]:	Levene's test	F = 0.609	Sig. = 0.450	
t-test for equal variances		t = 0.309	Sig. (2-tailed) = 0.763	
t-test[b]:				
Levene's test		F = 3.882	Sig. = 0.069	
t-test for equal variances		t = 1.799	Sig. (2-tailed) = 0.094	
t-test[c]:				
Levene's test		F = 1.761	Sig. = 0.209	
t-test for equal variances		t = 1.791	Sig. (2-tailed) = 0.098	

[a]t-test for comparing means between FTSE Athex Large Cap and FTSE Athex Mid Cap
[b]t-test for comparing means between FTSE Athex Large Cap and Rest companies
[c]t-test for comparing means between FTSE Mid Cap and Rest companies

The equality of means for each of the above hypotheses was tested under the assumption of the equal variance (based on the Levene's test of the homogeneity of the variance), and the results are presented in Table 14.5. As it is apparent, companies in the FTSE Athex Large Cap have higher COC quality than the companies in the Rest category, but the difference is not statistically significant between the companies in the FTSE Athex Large Cap and the companies in the FTSE Athex Mid Cap. The results are the same regardless of the method used to calculate the quality scores. However, the score difference between the companies in the FTSE Athex Mid Cap and the companies in the Rest category is not that obvious, since its significance depends on the method used to calculate the scores. Under the dichotomous approach the t-test for the equality of means rejects the hypothesis that companies in the FTSE Athex Mid Cap have higher COC quality than companies in the *Rest* category; with the results being the opposite when the PC method is used.

These findings confirm to some extent that larger companies have better COC quality; a fact that could be explained either by the higher compliance risk that these companies have compared to smaller ones, or by the resource availability for the development of their ethics, or else by the greater need that these companies have to respond to the stakeholders' interests and claims (Garegnani et al. 2015a). However, what most deserves to be highlighted, once again, is the controversy of the two methods regarding the conclusions, which should strengthen the proposition of the researches that employ both methods, to avoid producing misleading results.

14.6 Conclusions and Limitation

The aim of this study was to evaluate the intrinsic quality of COC in Greek listed companies. This was attained through the careful construction of an index that assumed that the higher quality of the COC's context leads to less unethical behavior (for more, see Garegnani et al. 2015a).

For this reason, 49 individual quality indicators were identified and classified into seven categories: *commitment from the top*, *style and availability*, *whistle-blowing*, *relations to stakeholders*, *workforce behavior*, *compliance procedures*, and *legal items* (see appendix). Then, the overall COC quality was calculated using two methods: (i) the dichotomous and (ii) the PC unweighted index (see Fig. 14.1).

This study reveals that the research findings may be affected by the method used to calculate the index. We provided evidence that the quality scores are sensitive to the method, with the dichotomous tending to provide higher scores than the PC. However, apart from the differences in scores, changes in the ranking order may also occur. Also, there were findings which claim that the contradictory results are also apart when the scores are compared between different capitalization companies. For instance, when we statistically tested the significance of the differences in scores between FTSE ASE Mid Cap and Rest companies under both methods (dichotomous and PC), we came up with contradictive results.

The implications of this study are essential either for scholars or managers, for the former to understand that a different measure can produce statistically different scores. Thus, researchers should be cautious when constructing indices, since there is some evidence that "weighting matters." For the latter to understand that COC can work as a communication route. On that basis, managers have the power to send different messages to market participants through their CSR strategy and the COC.

However, this study has also constrains. First, all the quality scores of codes were based on COC; a voluntary statement which is not subject to audit. Moreover, we used only the available COC that are posted on their Web sites. Thus, it is evident that a more significant sample could probably produce different aggregate scores. Also, different items, criteria, or scoring systems could probably affect the scores. Despite these constrains, our study contributes to the literature in two ways. Firstly, it provides methodological insights into the construction of an index that measures the quality of COC, and secondly, it provides new evidence regarding a small market that faces severe economic consequences.

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