

Corporate governance and provisions under IAS 37

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Abstract

Purpose – The purpose of this paper is to illustrate the extent of disclosure of provisions reported under IAS 37 provisions, contingent liabilities and contingent assets and explore the relation between provisions and corporate governance.

Design/methodology/approach – The current research utilizes a panel data analysis using a sample of 1,078 firm-year observations from Borsa Istanbul between the years 2005 and 2010.

Findings – Overall findings indicate that 62 percent of 1,078 firm-year observations recognize provisions, and among those, only 32 percent provide IAS 37's full disclosure requirements. Firms that recognize provisions have larger board of directors and are more likely to be characterized with concentrated ownership and institutional owners. Also, firms with larger board of directors, greater independence and concentrated ownership have higher total provision/total debt ratios. Finally, firms that make full disclosure of provisions are more likely to have larger boards, higher ownership concentration and institutional owners and less likely to have CEO duality.

Research limitations/implications – As with all research, there are several limitations of this study. The study suffers from a lack of literature about provisions under IAS 37. The lack of literature directly focusing on provisions or IAS 37 appears to be one of the main limitations as well as one of the main contributions. Since this study focuses on one country, the comparison is not possible. Further research may contribute to literature by the use of other emerging economy's capital market data. Moreover, further research can cover any other mandatory disclosure information specified in IASs/IFRSs and can provide comparative results about the compliance and strictness of the mandatory disclosure regime.

Practical implications – This study can be of interest to government, investors, business management, regulatory bodies, educators, researchers, accountants, auditors and scholars particularly in the field of accounting by seeking to make theoretical and practical contributions in the area of accounting disclosures and also serves as benchmark for future researches on corporate disclosures. Also this study provides significant insights to accounting regulators who set disclosure requirements.

Originality/value – Accurate corporate reporting is a necessary tool for the short- and long-term survival of the firms, hence the capital markets. Studying the level of disclosure will enable us to have additional insights about corporate reporting and will enhance the understanding of the nature of corporate reporting in developing countries. Disclosure practices by developing countries were empirically investigated in the past; however, the relation between provisions under IAS 37 and corporate governance has been unexplored in the literature. Thus, to the best of the authors' knowledge, this is a pioneering research on provisions and corporate governance structure.

Keywords Disclosure, Corporate governance, IAS 37, Provisions

Paper type Research paper

1. Introduction

Disclosure is one of the important determinants of financial reporting quality, and it is a widely discussed concept in accounting literature. Since corporate governance uses disclosure and transparency as a policy to reduce agency problem and information asymmetry and hence improve financial reporting quality, disclosure has gained further importance in recent years. Moreover, not only disclosure and transparency about historical and/or financial information is required but also disclosure and transparency of forward-looking and/or non-financial information is discussed to be crucial for reducing information asymmetry between principals and agents. On the other hand, provisions



recognized under IAS 37 provisions, contingent liabilities and contingent assets are liabilities with uncertain timing or amount, and this uncertain nature makes them being perceived as forward-looking information. In this context, considering the enhanced role of disclosing forward-looking information and significance of corporate governance in financial reporting quality, this study aims to examine the effects of corporate governance structure on disclosure level of provisions which will be proxy for forward-looking information in Turkey.

Accurate corporate reporting is a necessary tool for the short- and long-term survival of the firms, hence capital markets. Therefore, studying the level of disclosure will enable us to have additional insights about corporate reporting and will enhance our understanding of its nature in developing countries regarding IFRS adoption. Although it is not easy to determine the effects of each new practice brought into effect by the IFRS adoption on corporate reporting, it is important to investigate the effects of provisions since they represent one of the major forward-looking information-related areas considering the inevitable role of forward-looking information on corporate governance.

With this regard, current study utilizes a panel data analysis using a sample of 1,078 firm-year observations from Borsa Istanbul (BIST) between the years 2005 and 2010. Results of this study indicate that 62 percent of 1,078 firm-year observations recognize provisions, and among those, only 32 percent provide IAS 37's full disclosure requirements. Moreover, firms that recognize provisions have larger board of directors and are more likely to be characterized with concentrated ownership and institutional owners compared with firms that do not recognize provisions. Also, firms with larger board of directors, greater independence of board of directors and concentrated ownership have higher total provision/total debt ratios. Finally, firms that make full disclosure of provisions are more likely to have larger boards, higher ownership concentration and institutional owners and less likely to have CEO duality.

To the best of our knowledge, this study is a pioneering work on provisions and corporate governance and extends the prior literature in several ways. Initially, it makes contributions to literature by studying provisions which are one of the most debatable as well as unexplored concepts in the accounting world. It is indicated in the standard (IAS 37) that in some countries provisions are also used in the context of items such as depreciation, impairment of assets and doubtful debts. However, these are adjustments to the carrying amounts of the assets and not in the scope of the standard (IAS 37, (7)). Turkey is one of the countries that face this indicated problem (Cemalcılar, 2001). Therefore, clarifying provision concept and revealing the disclosure level of provisions extend the prior forward-looking information studies. This study contributes to forward-looking information literature by using provisions as a proxy. On the other hand, it contributes to the IFRSs literature by studying one specific standard IAS 37 regarding provision structure and its disclosure level in depth. Particularly, a detailed classification of provisions has been introduced by providing specific examples for each, as well. Also, current study provides significant insights to government, investors, business management, regulatory bodies, educators, researchers, accountants, auditors and scholars particularly in the field of accounting by seeking to make theoretical and practical contributions in the area of accounting disclosures and also serves as benchmark for future researches on corporate disclosures.

The study proceeds as follows: Section 2 provides the theoretical framework; Section 3 introduces the research design, explaining the data, methodology and measures; Section 4 presents the results; and Section 5 discusses the findings.

2. Theoretical framework and hypotheses development

The purpose of this study is to reveal to what extent provisions are recognized and disclosed in financial reports and investigate its relationship with corporate governance

structure of the firms. Therefore, this section has been divided into two parts. First part provides theoretical insights to provisions and corporate governance, whereas second part provides theoretical insights to disclosure and corporate governance.

2.1 Provisions proxy for forward-looking information and corporate governance

Financial reporting serves as the measurement basis of the performance and therefore is considered as a bridge between users and companies. An effective financial reporting system requires an effective information system, which of course requires an effective corporate governance structure (Baker and Wallage, 2000). Also, corporate governance principles indicate that "The board of directors shall be held responsible for the preparation and presentation of the company's periodical financial statements in accordance with the current legislation and international accounting standards and the reliability and accuracy thereof" (CMB, Corporate Governance Principles, 2.13). Thus, it is obvious that corporate governance structure affects financial reporting. Moreover, corporate governance has gained valuable importance in recent years by mitigating role on information asymmetry and agency problems and consequently influencing the financial reporting and disclosure quality. The information and agency frameworks raise a number of important questions for financial reporting and disclosure research such as the role of disclosure and financial reporting regulations in moderating information and agency problems from different aspects.

Furthermore, decision makers require information about the amounts, timing and uncertainty of the company's future economic inflows and outflows, namely, they need a forward-looking perspective in order to predict a company's financial future accurately (Berndt and Leibfried, 2007). In other words, high-quality financial reporting aims to provide information to capital providers about expected future cash flows of companies, namely, the more information they contain with respect to future cash flows, the higher is the quality (Ewert and Wagenhofer, 2016). Therefore, it is crucial to enhance the quality and usefulness of financial reports via future-oriented estimations. Future oriented estimations so forward looking information concerns forecasts based on current fact, which allows users to evaluate a company's future performance (Menicucci, 2013). Forward-looking information is best described with the words "predict," "expect," "estimate," "anticipate" and "forecast" (Aljifri and Hussainey, 2007). Provisions are defined as liabilities of uncertain timing or amount which should be recognized only when an entity has a present obligation as a result of past events; it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation (International Accounting Standards Board, 2011, para. 10, 14). Provisions which are future-oriented estimations are perceived as forward-looking information in financial reports due to its uncertain nature and future. Therefore, this study uses provisions as a proxy for forward-looking information.

In the light of the above arguments, one major line in accounting research is devoted to investigate the relationship between forward-looking information and corporate governance from different aspects. Ajinkya *et al.* (2005) report that firms with more independent boards and greater institutional ownership are more likely to issue a management earnings forecast and to forecast more frequently. Similarly, Karamanou and Vafeas (2005) find that the likelihood of making a management earnings forecast is positively associated with stronger corporate governance in the form of more outside directors on the board, a lower level of managerial share ownership, a higher level of institutional share ownership and a smaller audit committee. However, the distinction between "good" and "bad" corporate governance mechanisms is debatable. For instance, for the size of board of directors, while some argue that "The greater the need for effective external linkage, the larger the board should be" (Pfeffer and Salancik, 1978), others support the view "Keeping boards small can help improve their performance. When boards get beyond seven or eight people they are less

likely to function effectively and are easier for the CEO to control” (Jensen, 1993). For the ownership concentration again, there are opposing views. One is that concentrated ownership serves as a controlling mechanism on management and hence mitigates agency problems (Grossman and Hart, 1988); on the contrary, concentrated ownership would serve agency problem if the interest of majority shareholders do not align with minority shareholders (Claessens *et al.*, 2002). However, higher independence of board of directors, the absence of CEO duality and higher institutional ownership structure are characterized with strong corporate governance structure. It is argued that appointment of independent members to the board of directors would enhance the perception of the board as an internal control mechanism (Fama, 1980), separate the decision management and control functions (Fama and Jensen, 1983) and mitigate agency problem, therefore create pressure for better disclosure (Forker, 1992). Moreover, it is suggested that the role of the CEO and chairman should be separated in order to avoid power concentration and increase the ability of controlling and monitoring the management’s activities (Jensen, 1993). Finally, as institutional owners are more sophisticated and experienced with access to relevant information (Balsam *et al.*, 2002), it is suggested that they would be more effective in controlling and monitoring management’s activities (Siregar and Utama, 2008). Therefore, considering the relation of financial reporting and corporate governance, it is expected that the extent of forward-looking information in the financial reports will differ according to the corporate governance structure. It is expected that firms with higher independence of board of directors, lower CEO duality and higher institutional ownership structure are more likely to recognize provisions in their financial reports. For the board size and ownership concentration, while it is expected a difference among firms, as their role is to enhance corporate governance changes based on some other factors (e.g. the country-level corporate governance structure, the alignment or entrenchment effect and group behaviors), the direction of the difference may not be anticipated.

Consequently, the following hypotheses are developed to test the relation between provisions and corporate governance structure:

- H1. There is a difference in corporate governance structure of firms that recognize provisions.
- H2. Total provision/total debt ratio will differ according to corporate governance structure of firms.

2.2 Disclosure of provisions and corporate governance

Literature investigating the relation between disclosure of forward-looking information and corporate governance has a wide range. Majority of these studies rely on voluntary disclosure of forward-looking information due to its voluntary nature and its relation with corporate governance structure (i.e. Eng and Mak, 2003; Donnelly and Mulcahy, 2008; Allegrini and Greco, 2013; Barros *et al.*, 2013). On the other hand, since the general move to IFRS, there are several studies that focus on compliance level of overall disclosure requirements considering its mandatory nature (Street *et al.*, 1999; Street and Bryant, 2000; Glaum and Street, 2003; Hodgdon *et al.*, 2008; Mutawaa and Hewaidy, 2010; Juhmani, 2012; Glaum *et al.*, 2013; Ballas *et al.*, 2014; Tsalavoutas and Dionysiou, 2014). However, there is a lack of literature clarifying the effect of special accounting treatments on disclosure and its relation with corporate governance, although with the adoption of IFRS, mandatory disclosure requirements of specific accounting treatments are on the agenda of many researchers.

Initially, it is important to distinguish between disclosure and recognition. Recognition is incorporating information in the financial statements, whereas disclosure is informing investors by footnotes or annual reports without incorporation in financial statements (Ball, 2006). It is argued that forward-looking information disclosure is strongly attached to legal system.

Litigation has the effect of reducing forward-looking information if the legal system penalizes forecasts disclosed with positive intents because of the difficulties in distinguishing unexpected forecast errors due to chance and those due to deliberate management bias (Healy and Palepu, 2001).

In the related literature, it is also argued that board size is one of the crucial components of an effective corporate board, and larger boards are associated with greater level of disclosure (Kent and Stewart, 2008). Moreover, larger firms tend to have larger boards and are monitored by various government agencies, hence tend to disclose more information to avoid pressure from them (Wallace *et al.*, 1994). An effective board of directors would largely include outside members. Also, effective corporate boards are the ones which succeed in the separation of decision management and decision control (Fama and Jensen, 1983). Forker (1992) argued that independent directors are more responsive to investors, and their appointment on corporate boards would improve the compliance with disclosure requirements, thereby enhancing the disclosure quality in financial reports. This argument is also supported by empirical research that finds significant positive relation between the level of disclosure and the proportion of independent directors on the board (Leftwich *et al.*, 1981; Chen and Jaggi, 2000; Leung and Horwitz, 2004; Ajinkya *et al.*, 2005). Therefore, it is expected that inclusion of independent members in the board of directors would not only increase the information disclosure but also be useful for monitoring boards' activities and improving the transparency of corporate boards (Chen and Jaggi, 2000). Lim *et al.* (2007) claim the association between a core component of CG and disclosures holds only for certain types of disclosure. They find board independence is influential only on "forward-looking and quantitative information", and there is no relationship for "non-financial and financial voluntary disclosure" in Australian firms' 2001 annual reports.

Hossain *et al.* (2005) document that independence of board of directors is found to be positively associated with disclosure level of forward-looking information. Çelik *et al.* (2006) examined firm characteristics affecting the level of forward-looking information disclosure for ISE companies in Turkey. Their results indicate that the overall disclosure level of forward-looking information is positively associated with company size and foreign offers, where a negative significant association is documented for ownership structure, profitability, level of foreign investment and the proportion of institutional investors. Moreover, Uyar and Kılıç (2012) examined the extent of forward-looking information for Turkish manufacturing firms and identified the attributes of disclosure. Forward-looking items regarded in their study were profits/profitability forecast, market share forecast, sales forecast, cash flow forecast, capital expenditure forecast, new investments forecast and share price estimation. Their results revealed that forward-looking disclosure level is not high among Turkish firms, and majority of the disclosures are qualitative which are dominated by good news. Moreover, firm size and audit firm are important determinants of forward-looking information disclosure, where profitability, leverage, ownership structure, independent directors and listing age are found to be insignificant.

One of the effective corporate governance signals is separation of the roles which is associated by not assigning the CEO as the chair of the board of directors. In order to mitigate agency problem, it is proposed that firms should provide timely and adequate disclosure of financial information. However, CEO duality would lead to hiding unfavorable information from outsiders (Ho and Wong, 2001). Occupation of two positions by the same individual reveals the existence of "dominant personality" in the firm which would pose a threat to information disclosure by reducing monitoring quality and withholding information. Also, previous literature theoretically proves that dominance in the firm, namely, CEO duality, has been found to be negatively associated with poor disclosure (Forker, 1992).

Ownership structure and type of equity owners are crucial components to clarify the differences in extent of disclosure for firms (Haniffa and Cooke, 2002). Agency theory argues

that separation of “ownership” and “control” would lead a potential for agency costs as a result of conflicts of interest between agents and principals. It is argued that the magnitude of the agency costs varies from firm to firm and may increase or decrease based on the extent of separation and control within a corporation. Since widely held share ownership could result to greater conflicts between the owners’ and managers’, managers disclose more information than closely held organizations. In this respect, to reduce the agency costs, it is suggested that firms will disclose more information in the presence of a diffused ownership environment (Jensen and Meckling, 1976; Fama and Jensen, 1983). Besides, substantial shares held by institutional investors may lead to higher disclosure of information to decrease information asymmetry (Diamond and Verrecchia, 1991). Also there are studies that find a positive relationship between disclosure and the number of independent directors on the board (Leftwich *et al.*, 1981; Forker, 1992; Hossain *et al.*, 2005), and a higher level of institutional ownership (Bushee and Noe, 2000).

Particularly, since the absence of CEO duality, higher independence of the board and the existence of institutional ownership are signals for effective corporate governance mechanisms, it is expected that firms that make full disclosure of provisions are characterized by lower CEO duality, greater board independence and institutional ownership. As discussed in the previous part, effective corporate governance mechanisms cannot be defined clearly for the board size and ownership concentration. Again a difference is expected among firms, the direction of the difference may not be anticipated.

Based on the discussions above, the following hypothesis is developed to test the relation between disclosure and corporate governance structure:

- H3. There is a difference in corporate governance structure of firms that make full disclosure of provisions.

3. Research design

3.1 Sample and data specification

The study uses both quantitative and qualitative data of non-financial firms listed on BIST between the years 2005 and 2010 (post IFRS period). The data used in the study are twofold: initially to score disclosure checklist, the data are drawn from financial reports of the sample firms, and then, for corporate governance measure, annual reports and corporate governance principles compliance reports are examined. For BIST firms, there is no available database for either compliance with the standards or corporate governance. Therefore, the disclosure and corporate governance data were hand collected both from the financial reports and annual reports from BIST website and Public Disclosure Platform website.

Firms that have different reporting periods other than January 1-December 31 were excluded. Moreover, financial firms were excluded because of their different regulations and enforcement mechanisms that they would have to follow. The final sample comprises 1,078 firm-year observations as shown in Table I.

3.2 Variable measurement

3.2.1 *Disclosure-level measure.* Disclosure indices are extensive lists of selected items, which may be disclosed in company report (Marston and Shrivs, 1991). Early studies of disclosure indices were pioneered by Cerf (1961), and afterwards, many researchers have contributed to disclosure literature from various contexts and formalized the concept of “disclosure index.” This study focuses on mandatory disclosure requirements of IFRS (the standard IAS 37) by using an unweighted approach, which attaches equal importance to all disclosure items. Also, disclosure compliance to the standard was measured under the

Table I.
Sample composition

Industry/year	2005	2006	2007	2008	2009	2010	Total
Basic metal industries	12	12	12	12	11	12	71
Chemicals, petroleum, rubber and plastic products	21	21	21	21	21	21	126
Construction and public works	2	2	2	2	2	2	12
Consumer trade	4	5	6	6	6	7	34
Defense	1	1	1	1	1	1	6
Education, health, sports and other social services	1	2	2	2	2	2	11
Electricity, gas and steam	3	3	3	2	3	4	18
Fabricated metal products, machinery and equipment	24	25	24	24	25	25	147
Food, beverage and tobacco	19	19	20	20	20	22	120
Information technology	8	10	11	11	11	12	63
Mining	1	1	1	1	1	2	7
Non-metallic mineral products	26	26	26	26	26	26	156
Other manufacturing industry	3	3	3	2	2	2	15
Paper and paper products, printing and publishing	13	13	13	13	13	14	79
Restaurant and hotels	3	3	3	4	4	5	22
Telecommunication	1	1	1	2	2	2	9
Textile, wearing apparel and leather	25	23	24	24	22	21	139
Transportation	1	2	2	2	4	5	16
Wholesale trade	3	4	3	3	3	4	20
Wood products including furniture	–	–	1	2	2	2	7
Total	171	176	179	180	181	191	1,078

“dichotomous approach”; however, after scoring the disclosure items instead of calculating an index, observations are classified as “full disclosure” and “partial disclosure.” The details of the construction of the checklist are explained below.

Disclosure checklist used in the study has been gathered from the disclosure section of IAS 37. Disclosure requirement of the standard comprises eight different items for each class of provision. First, five items are the amounts that are explicit and do not require judgment of the collector; however, following three items are controversial and requires the judgment of the collector (i.e. IAS 37:85(a) requires disclosure about a brief description of the nature of the obligation and the expected timing of any resulting outflows of economic benefits). Therefore, while building the disclosure checklist used in the study, first five disclosure items are considered. However, first disclosure item (IAS 37:84(a)) requires the carrying amount of the provision at the beginning of the period and at the end of the period. That statement involves two different types of information. Consequently, this first disclosure item is regarded as two different items; so total disclosure index is formed for six disclosure items as shown in Table II.

Moreover, construction of the disclosure checklist progressed as follows:

- Financial reports of the sample firms are hand collected from BIST website and Public Disclosure Platform website.
- Initially, amounts of provisions are collected for the sample firms.
- Then, footnotes in the financial reports are examined in detail to build the disclosure checklist. An item-based disclosure index is used, in which a dichotomous procedure is applied, where an item scores “1” if it is disclosed and “0” otherwise. To assign the “0” score, the applicability of the item each firm is considered. If the item is not applicable (NA) for that firm, it is coded as “NA” instead of “0.”
- Afterwards, firms with provisions are coded as “1,” and firms without provisions are coded as “0.”

- Finally, from the whole sample, firms with provisions are sorted. The total score of those firms for the disclosure index is calculated. If the score is equal to 6, which is the total possible disclosure score, then it demonstrates that those firms made full disclosure of provisions for that year and is therefore coded as “1,” which points out full disclosure. On the contrary, if the total disclosure score is less than 6, it is coded as “0,” which points out that those firms made partial disclosure of provisions for that year.

3.2.2 Classification of provisions. In the initial examination, 49 different types of provisions emerged (i.e., environmental liability provisions, provisions for restructuring expenses, short-term warranty provisions, long-term warranty provisions, labor litigation provisions and other litigation provisions). In order to clarify the provision concept used in the study and to refine the data set, provisions are classified initially into eight classes, according to their characteristics. However, after excluding outliers from the initial sample, there remained only a few observations for provisions for risks. Thus, the final classification of provisions comprises seven classes, which are described in Table III.

Disclosure items	Codes	Item description
Disclosure Item No. 1	IAS 37:84(a)	The carrying amount at the beginning of the period
Disclosure Item No. 2	IAS 37:84(a)	The carrying amount at the end of the period
Disclosure Item No. 3	IAS 37:84(b)	Additional provisions made in the period, including increases to existing provisions
Disclosure Item No. 4	IAS 37:84(c)	Amounts used during the period
Disclosure Item No. 5	IAS 37:84(d)	Unused amounts reversed during the period
Disclosure Item No. 6	IAS 37:84(e)	The increase during the period in the discounted amount arising from the passage of time and the effect of any change in the discount rate

Table II.
Disclosure items

Provision classes	Description and coverage
Provisions for litigation	Referring to provisions for juridical, labor, commercial and administrative litigations filed against the company, i.e., labor litigation provisions, rent litigation provisions and short-term litigation provisions
Warranty provisions	Referring to provisions that a company recognizes the estimated liability to repair or replace products under warranty, i.e., short-term warranty provisions and long-term warranty provisions
Provisions for penalty	Referring to provisions for penalties resulting mostly from legal and governmental regulations, i.e., penalty provisions for tax exposures, provisions for overdue interest charge of unpaid taxes, and provisions for obligatory employment shortage of disabled people, ex-convicts and terror victims
Legal provisions	Referring to legal provisions resulting from legal and governmental regulations, i.e. adequate pay expense provisions, and provisions for government limestone usage compensation
Provisions for rehabilitation costs	Referring to provisions for restructuring costs, i.e., environmental liability provisions; provisions for restructuring expenses; provisions for land restructuring; provision for asset retirement obligation; rehabilitation of the mine sites and shut down of mine; and provisions for site restorations
Provisions for returns and allowances	Referring to provisions for any probable return of products from customers
Provisions for customer loyalty	Referring to provisions for premiums, bonus and similar special offers to customers, i.e., provisions for promotions, provisions for customer loyalty program and volume rebate provisions

Table III.
Provision classes

3.2.3 Corporate governance measure. Corporate governance measure used in the study can be classified into two groups: structure of board of directors and ownership structure, namely, internal corporate governance mechanisms.

Board of directors is characterized by the independence of the board (BOARD_IND), size of the board (BOARD_SIZE) and CEO duality (CEO_D), and ownership structure is characterized by institutional ownership (INST_OWN) and ownership concentration (OWN_CONC). Independence of the board is measured as the proportion of the independent directors to the total number of directors on the board (Ho and Wong, 2001). Size of the board was measured as the number of members on the board. CEO duality refers to the situations where CEO is also the chair of the board of directors (Haniffa and Cooke, 2002). To measure CEO duality, a dichotomous procedure was used, where “1” is coded when the CEO and chair of the board is the same person and “0” otherwise. Institutional ownership refers to the situation where the largest shareholder is an institution or not. While measuring institutional ownership, a dichotomous procedure is used. If the largest shareholder is an institution, “1” is coded and “0” otherwise to measure institutional ownership. Finally, ownership concentration is “the extent to which a small number of shareholders own a large proportion of share capital” (Jeanjean *et al.*, 2008). Basically, ownership concentration concentrates on the distribution of shares among investors. In the study, ownership concentration is measured with the percentage of ownership shares of the largest shareholder.

Concepts and measurements of all variables are summarized in Table IV.

4. Results

4.1 Descriptive statistics

Table V presents descriptive statistics for all firm-year observations covering mean, median, standard deviation, minimum and maximum values of variables used. Mean and median of board of directors' size (BOARD_SIZE) are 6.413 and 6, respectively, revealing that the firms in the sample have six directors on average, ranging between 3 and 14 in the board of directors. When compared to USA, UK and other European firms, this number demonstrates small-sized board of directors (Allegrini and Greco, 2013). Likewise, mean and median of board independence (BOARD_IND) are 0.48 percent and 0, respectively, representing quite a

Variables	Definition	Measurement
<i>Dependent variables</i>		
PROV_EXIST	Existence of provisions (used to test H1)	Coded “1” if a provision exists for that firm-year observation and “0” otherwise
TP/TD	Total provision to total debt ratio (used to test H2)	Total provision/total debt
PROV_DISC	Disclosure of provisions (used to test H3)	Coded “1” if all mandatory items in the checklist are disclosed and classified as “full disclosure.” Coded “0” if all mandatory items in the checklist are not disclosed and classified as “partial disclosure”
<i>Independent variables</i>		
BOARD_IND	Independence of the board of directors	the proportion of the independent directors to the total number of directors on the board
BOARD_SIZE	Size of the board of directors	number of members in the board
CEO_D	CEO duality	Coded “1” if chairman also holds the position of CEO and “0” otherwise
INST_OWN	Institutional ownership	Coded “1” if the largest shareholder is an institution and “0” otherwise
OWN_CONC	Ownership concentration	Percentage of shares held by the largest shareholder(s)

Table IV.
Concepts and measurement of variables

Variables	Mean	Median	SD	Min.	Max.
BOARD_SIZE	6.413	6	1.910	3	14
BOARD_IND	0.048	0	0.111	0	0.66
CEO_D	0.163	0	0.369	0	1
OWN_CONC	48.86	49.11	22.56	0.78	99.28
INST_OWN	0.80	1	0.399	0	1
PROV_LITIGATION	2,117,185.439	21424.5	13,723,133.14	0	252,978,000
PROV_WARRANTY	2,475,279.557	0	15,227,071.43	0	246,192,000
PROV_LOYALTY	269,771.2143	0	2,765,721.172	0	41,976,000
PROV_PENALTY	206,341.9267	0	1,152,739.065	0	16,813,000
PROV_REHAB	246,508.0353	0	3,024,874.283	0	86,023,000
PROV_RETURN	23,676.00093	0	333,313.4544	0	7,321,412
PROV_LEGAL	29,721.9666	0	366,257.8314	0	7,559,094
PROV_TOTAL	5,368,484.139	143,337.5	23,104,536.57	0	288,168,000
PROV_EXIST	0.62	0	0.484	0	1
PROV_DISC	0.32	0	0.469	0	1

Notes: $n = 1078$ firm-year observations between the years 2005-2010. BOARD_SIZE is the size of the board of directors; BOARD_IND is the independence of the board of directors; CEO_D is CEO duality; OWN_CONC is ownership concentration; INST_OWN is the institutional ownership; PROV_LITIGATION is the sum of provisions for litigation; PROV_WARRANTY is the sum of provisions for warranty; PROV_LOYALTY is the sum of provisions for customer loyalty; PROV_PENALTY is the of sum of provisions for penalty; PROV_REHAB is the of sum of provisions for rehabilitation costs; PROV_RETURN is the of sum of provisions for returns and allowances; PROV_LEGAL is the of sum of legal provisions; PROV_TOTAL is the of sum of all provision types; PROV_EXIST is the existence of a provision; PROV_DISC is the disclosure of provisions

Table V.
Descriptive statistics
for all firm-year
observations

low level of board independence relative to that of European firms which report 0.77 (Desender *et al.*, 2013), and US firms, which reporting 0.58 (Klein, 2002) as mean values for board independence. Mean and median of CEO duality (CEO_D) are 0.163 and 0, respectively. The mean value of CEO duality implies that approximately 16.3 percent of observations in the sample have CEO duality while the remaining do not. Mean and median values of ownership concentration (OWN_CONC) are 48.86 and 49.11, respectively, illustrating that approximately 48 percent of sample firms' shares are held by big shareholders. Mean and median values for institutional ownership (INST_OWN) are 0.80 and 1, respectively, which implies that 80 percent of firms in the sample have an institutional owner. Furthermore, the mean value of existence of a provision (PROV_EXIST) is 0.62, illustrating that 62 percent of firm-year observations have at least one class of provision. Mean value of disclosure of provisions (PROV_DISC) is 0.32; figuring out among the observations that have at least one class of provision, only 32 percent fully disclosed the requirements of the standard.

To sum up, Table VI compares the results with some other USA, European, Australian and Asian firms. It is clear that Turkey has a relatively small board of directors with low independency and CEO duality. Also the ownership structure is highly concentrated and characterized by institutional owners.

Table VII and Figure 1 show the average amounts of provisions for each classification according to year. Provisions for litigation point out an overall increasing trend; however, there is a sharper rise between the years 2007 and 2009. Similarly, provisions for warranty show an increasing tendency, with a sharp increase in 2006. Provisions for customer loyalty display a remarkable rise in 2006 followed by a steadier trend in the coming years. Moreover, average provision amounts for penalty demonstrate a decreasing trend between the years 2005 and 2008 and then followed by an increase in 2009 and again a decrease in 2010. On the other hand, provisions for rehabilitation costs illustrate a steady tendency

between the years 2005 and 2008, and followed by a significant rise between the years 2008 and 2010. Provisions for returns and allowances show a decreasing tendency between 2005 and 2008, and then a substantial increase for the following years. Finally, legal provisions point out variable tendency, increasing between 2005 and 2007, then decreasing in 2008, and then again increasing in 2009 and 2010. Since there is limited research on provisions under IAS 37, the study contributes to literature by exploring a provision classification which comprises provisions for litigation, warranty provisions, provisions for penalty, legal provisions, provisions for rehabilitation costs, provisions for returns and allowances and provisions for customer loyalty. The highest mean values belong to warranty provisions and provisions for litigation as of 2,117,185.439 and 2,475,279.557, respectively. Data of the study cover 20 industries, which include nine manufacturing and 11 non-manufacturing industries. However, in terms of firm-year observations, there are 860 manufacturing and 218 non-manufacturing observations. Therefore, it is not surprising to have the highest mean value for warranty provisions when considering the nature of the manufacturing industry[1]. Having a higher mean value of provisions for customer loyalty for manufacturing firms may be interpreted as manufacturing firms

Table VI.
Corporate governance variables: an international comparison

	Country	BOARD_SIZE	BOARD_IND	CEO_D	OWN_CONC	INST_OWN
Current study	Turkey	6.41	0.48	0.16	48.86	0.80
Allegrini and Greco (2013)	Italy	9.67	0.38	0.41	36.61	n/a
Karamanou and Vafeas (2005)	USA	11.60	0.78	n/a	n/a	0.58
Lim <i>et al.</i> (2007)	Australia	7.13	0.70	n/a	n/a	n/a
Ho and Wong (2001)	China	n/a	0.34	0.29	n/a	n/a
Haniffa and Hudaib (2006)	Malaysia	7.94	0.58	0.25	n/a	n/a
Desender <i>et al.</i> (2013)	Spain	n/a	0.77	0.56	70.00	n/a

Variables	2005	2006	2007	2008	2009	2010
PROV_LITIGATION (LN)*	745,727.1 (13.52)	1,013,697 (13.83)	1,027,878 (13.84)	2,366,533 (14.68)	3,822,491 (15.16)	3,531,722 (15.08)
PROV_WARRANTY (LN)	1,721,111 (14.36)	2,638,161 (14.79)	2,473,124 (14.72)	2,489,161 (14.73)	2,680,981 (14.80)	2,794,394 (14.84)
PROV_LOYALTY (LN)	165,910.4 (12.02)	289,715.8 (12.58)	255,323.4 (12.45)	314,369.7 (12.66)	325,733.1 (12.69)	262,856.6 (12.48)
PROV_PENALTY (LN)	243,519.2 (12.40)	239,678.2 (12.39)	203,301.9 (12.22)	144,264.5 (11.88)	225,485.5 (12.33)	185,549.3 (12.13)
PROV_REHAB (LN)	112,811.7 (11.63)	69,000.41 (11.14)	39,324.14 (10.58)	35,759.74 (10.48)	298,291.5 (12.61)	873,477.8 (13.68)
PROV_RETURN (LN)	4,759.491 (15.38)	3,714.676 (15.13)	2,958.933 (14.90)	27,763.55 (10.23)	50,119.04 (10.82)	49,510.15 (10.81)
PROV_LEGAL (LN)	956.9474 (16.07)	4,2118.6 (10.65)	54,859.75 (10.91)	13,848.07 (9.54)	28,093.4 (10.24)	36,996.4 (10.52)
PROV_TOTAL (LN)	2,994,796 (14.91)	4,296,085 (15.27)	4,056,770 (15.22)	5,391,700 (15.50)	7,431,194 (15.82)	7,734,507 (15.86)

Notes: PROV_LITIGATION is the sum of provisions for litigation; PROV_WARRANTY is the sum of provisions for warranty; PROV_LOYALTY is the sum of provisions for customer loyalty; PROV_PENALTY is the of sum of provisions for penalty; PROV_REHAB is the of sum of provisions for rehabilitation costs; PROV_RETURN is the of sum of provisions for returns and allowances; PROV_LEGAL is the of sum of legal provisions; PROV_TOTAL is the sum of all provisions in total. *Natural logarithm of the amounts are presented in the parentheses (LN)

Table VII.
Average provision amounts in each category

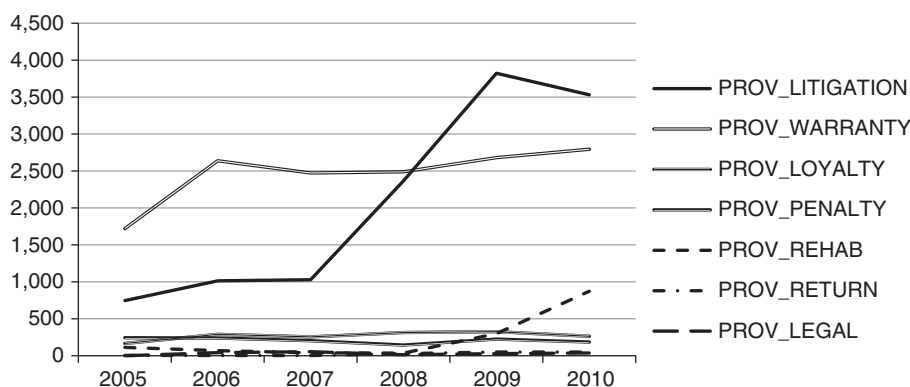


Figure 1.
Change in average provisions over years considering the provision classes

consider their customers. Also, to support the results, provisions' mean differences for manufacturing and non-manufacturing industries are provided in Table VIII.

Moreover, Figures 2 and 3 illustrate the change in average provisions in total over years and change in TP/TD ratio over years, respectively. Results reveal that provisions in total

	Industry		<i>t</i>	df
	Manufacturing (<i>n</i> = 860)	Non-manufacturing (<i>n</i> = 218)		
PROV_LITIGATION	981,923.3 (28,721,262)	6,595,743 (4,620,490)	2.8765***	219,854
PROV_WARRANTY	2,904,346 (16,929,218)	782,631.3 (3,557,463)	-3.3918***	1057,33
PROV_LOYALTY	336,875.5 (3,093,160)	5,048.06 (45526.72)	-3.1447***	860,466
PROV_PENALTY	184,776.9 (971,207)	291,414.9 (1,688,811)	0.8955	254,457
PROV_REHAB	173,135.8 (1,487,449)	535,958 (6,045,514)	0.8794	223,698
PROV_RETURN	28,307.74 (372563.5)	5,403.991 (38930.32)	-1.7652	927,781
PROV_LEGAL	18,108.38 (253111.6)	75,537.03 (639945.7)	1.2995	234,458
PROV_TOTAL	4,627,474 (20,192,132)	8,291,736 (32,010,601)	1.6108	262,308

Notes: *n* = 1,078 firm-year observations between the years 2005 and 2010. PROV_LITIGATION is the sum of provisions for litigation; PROV_WARRANTY is the sum of provisions for warranty; PROV_LOYALTY is the sum of provisions for customer loyalty; PROV_PENALTY is the of sum of provisions for penalty; PROV_REHAB is the of sum of provisions for rehabilitation costs; PROV_RETURN is the of sum of provisions for returns and allowances; PROV_LEGAL is the of sum of legal provisions; PROV_TOTAL is the sum of all provisions in total. Standard deviations appear in parentheses below means. ****p* < 0.01

Table VIII.
Provisions' mean differences manufacturing and non-manufacturing industries

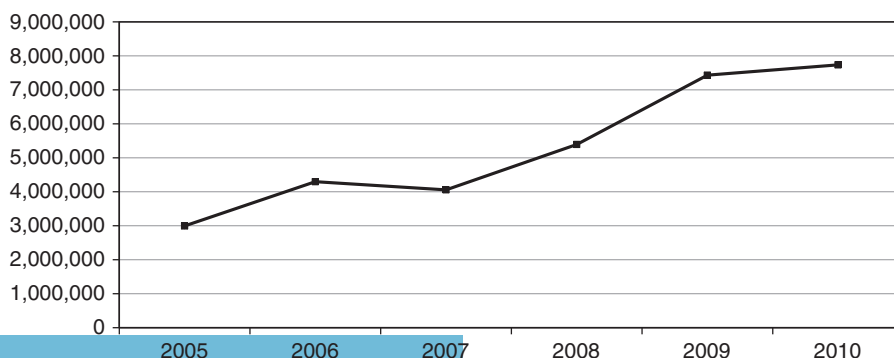
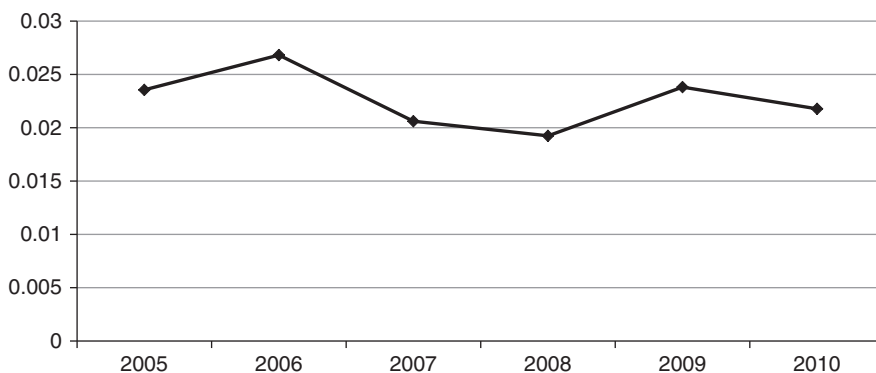


Figure 2.
Change in average provisions in total over years

Figure 3.
Change total
provision/total debt
ratio over years



show an increasing trend similar with the TP/TD ratio. However, from 2007 to 2008, average provision amounts show an increase, and TP/TD ratio shows a decrease. This may be because of the effects of 2008 crisis.

4.2 Hypotheses testing

In order to test *H1*, two different statistical tests were conducted: independent sample *t*-test and χ^2 test. CEO duality and institutional ownership have categorical nature among corporate governance variables. Moreover, recognition of provisions is again measured with dichotomous procedure where “1” is coded for the observations that provision exists and “0” otherwise. Therefore, to test the difference in corporate governance structure of firms that recognize provisions in terms of size of board of directors, independence of board of directors and ownership concentration, independent sample *t*-tests were conducted. For testing CEO duality and institutional ownership, χ^2 tests were conducted.

The study covers 1,078 firm-year observations. Among those 1,078 firm-year observations, 674 of them recognize provision and 404 of them do not recognize provisions. Based on the independent sample *t*-test results, the firms that recognized provisions had larger size of board of directors ($M=6.593472$, $SD=1.865703$) than the firms that did not recognize provisions ($M=6.113861$, $SD=1.948953$), $t(1,076)=-4.0176$, $p=0.0001$. Moreover, the firms that recognized provisions had higher ownership concentration ($M=51.52126$, $SD=22.58869$) than the firms that did not recognize provisions ($M=44.43606$, $SD=21.85462$), $t(1,076)=-5.0459$, $p=0.0000$. The results suggest no significant association for independence of board of directors.

Results of χ^2 tests of independence reveal that there is a statistically significant difference in the institutional ownership structure between firms that recognize and do not recognize provisions, where $\chi^2(1, n=1,078)=11.8246$, $p<0.01$. Firms that recognize provisions are more likely to have institutional owners. The results suggest no significant difference for CEO duality. According to the results, larger board of directors, ownership concentration and institutional ownership were significantly different for the firms that recognize provisions. Therefore, *H1* is partially accepted for the size of board of directors, ownership concentration and institutional ownership.

Tables IX and X illustrate the results of independent sample *t*-test and χ^2 tests.

In order to test *H2* which argued that TP/TD ratio would change according to corporate governance structure of firms, independent sample *t*-tests were used for each corporate governance variable. Since *H2* focuses on TP/TD ratio, and among those 1,078 firm-year observations, only the ones recognizing provisions were selected.

Results revealed that TP/TD ratio is significantly different for size of board of directors (BOARD_SIZE), independence of board of directors (BOARD_IND) and ownership concentration (OWN_CONC). Based on the independent sample *t*-test results, the firms that have larger board of directors have higher TP/TD ratio ($M=0.0260522$, $SD=0.0251544$) than the firms that have small board of directors ($M=0.0193819$, $SD=0.0433047$), $t(480.731)=2.3925$, $p=0.01$. Moreover, the firms that have at least one independent member have higher TP/TD ratio ($M=0.0246553$, $SD=0.0367217$) than the firms that do not have any independent member in the board of directors ($M=0.0127213$, $SD=0.0226533$), $t(289.171)=4.6487$, $p=0.0000$. Finally, the firms that are engaged with high ownership concentration have higher TP/TD ratio ($M=0.0254147$, $SD=0.0394519$) than the firms engaged in low ownership concentration ($M=0.0198977$, $SD=0.0226533$), $t(579.192)=2.0159$, $p=0.01$. The results suggest no significant difference for CEO duality and institutional ownership. Therefore, *H2* is partially accepted for size of board of directors, independence of board of directors and ownership concentration.

The results are revealed in Table XI.

The main argument of *H3* is the difference in corporate governance structure of firms that make full disclosure. The study focuses on six disclosure items for provisions. The total score of firm-year observations for the disclosure index is calculated. If the score is equal to 6, it is coded as "1," which points out full disclosure. On the contrary, if the total disclosure score is less than 6, it is coded as "0," which points out partial disclosure. Among the 674 firm-year observations recognizing provisions, 220 of them provide full disclosure whereas 454 provide partial disclosure. To test the difference in corporate governance structure of firms according to disclosure level, independent sample *t*-tests and χ^2 tests were conducted similar to the procedure in *H1*.

Based on the independent sample *t*-test results, the firms that make full disclosure of provisions had larger size of board of directors ($M=6.890909$, $SD=1.827469$) than the firms that make partial disclosure ($M=6.449339$, $SD=1.86896$), $t(672)=-2.8969$, $p=0.003$.

	Provisions		<i>t</i>	df
	Recognized (<i>n</i> = 674)	Not recognized (<i>n</i> = 404)		
BOARD_SIZE	6.593472 (1.865703)	6.113861 (1.948953)	-4.0176***	1,076
BOARD_IND	0.0484669 (0.1107855)	0.0477293 (0.1132532)	-0.1049	1,076
OWN_CONC	51.52126 (22.58869)	44.43606 (21.85462)	-5.0459***	1,076

Notes: *n* = 1,078 firm-year observations between the years 2005 and 2010. BOARD_SIZE is the size of the board of directors; OWN_CONC is the ownership concentration; BOARD_IND is the board independence. Standard deviations appear in parentheses below means. ****p* < 0.01

Table IX.
Corporate governance variables' mean differences for provision recognition

CEO duality	Provisions		χ^2	Φ
	Recognized	Not recognized		
Yes	105 (110)	71 (66)	0.7364	-0.0261
No	569 (564)	333 (338)		
<i>Institutional ownership</i>			11.8246***	0.1047
Yes	562 (540.2)	302 (323.8)		
No	112 (133.8)	102 (80.2)		

Notes: *n* = 1078 firm-year observations between the years 2005 and 2010. Expected frequencies appear in parentheses below group frequencies. ****p* < 0.01

Table X.
Cross-tabulation of provision recognition and corporate governance variables

	Board size		<i>t</i>	df
	Small	Large		
TP/TD	0.0193819 (0.0433047)	0.0260522 (0.0251544)	2.3925**	480.731
	Board independence			
	No	Yes		
TP/TD	0.0127213 (0.0226533)	0.0246553 (0.0367217)	4.6487***	289.171
	CEO duality			
	Yes	No		
TP/TD	0.0299335 (0.0485002)	0.0210806 (0.0315745)	-1.8013	120.769
	Ownership concentration			
	Low	High		
TP/TD	0.0198977 (0.0301447)	0.0254147 (0.0394519)	2.0159**	579.192
	Institutional ownership			
	Yes	No		
TP/TD	0.0220964 (0.0318382)	0.0242833 (0.0473376)	0.4683	131.704

Notes: $n = 674$ firm-year observations between the years 2005 and 2010. Standard deviations appear in parentheses below means; Board size: natural logarithm of size of board of directors (LN_BOARD_SIZE) is computed and the mean value of LN_BOARD_SIZE which is 1.812786 was selected as the group variable. The observations that are higher than the mean were coded as "1" and labeled as large boards; the observations that are lower than the mean were coded as "0" and labeled as small boards within the sample. Board independence: a dummy variable was created by coding the observations as "1" having at least 1 independent member and "0" having no independent member in the board. Ownership concentration: if the percentage of shares held by the largest shareholder(s) is higher than 50 percent that observation is coded as "1" and labeled with high ownership concentration, and if the shares held by the largest shareholder(s) is lower than 50 percent that observation is coded as "0" and labeled with low ownership concentration; CEO duality: if CEO is also the chair of the board that observation is coded "1" and "0" otherwise. Institutional ownership: if the largest shareholder is an institution that observation coded "1" and "0" otherwise. ** $p < 0.05$; *** $p < 0.01$

Table XI.
TP/TD ratio mean differences for corporate governance variables

Moreover, firms that make full disclosure had higher ownership concentration directors ($M = 57.40218$, $SD = 20.47446$) than the firms that make partial disclosure ($M = 48.67148$, $SD = 23.0316$), $t(482.256) = -4.9797$, $p = 0.000$. The results suggest no significant difference for independence of board of directors.

Results of χ^2 tests reveal that there is a significant difference in CEO duality between firms that make full disclosure and those that make partial disclosure of provisions, where $\chi^2(1, n = 674) = 5.4149$, $p < 0.05$. Firms that have CEO duality are more likely to make partial disclosure of provisions. In other words, firms that make full disclosure are less likely to have CEO duality. Furthermore, χ^2 tests illustrate a significant difference in institutional ownership between firms that make full disclosure and partial disclosure of provisions, where $\chi^2(1, n = 674) = 20.5827$, $p < 0.01$. Therefore, firms that make full disclosure are more likely to have institutional owners. Consequently $H3$ is partially accepted for size of board of directors, CEO duality, ownership concentration and institutional ownership.

Tables XII and XIII illustrate the results of independent sample t -test and χ^2 tests.

	Provisions		<i>t</i>	df
	Full disclosure ($n = 220$)	Partial disclosure ($n = 454$)		
BOARD_SIZE	6.890909 (1.827469)	6.449339 (1.86896)	-2.8969***	672
BOARD_IND	0.0537933 (0.1155697)	0.0458858 (0.1084275)	-0.8687	672
OWN_CONC	57.40218 (20.47446)	48.67148 (23.0316)	-4.9797***	482.256

Notes: $n = 674$ firm-year observations between the years 2005 and 2010. BOARD_SIZE is the size of the board of directors; OWN_CONC is the ownership concentration; BOARD_IND is the board independence. Standard deviations appear in parentheses below means. *** $p < 0.01$

Table XII.
Corporate governance variables' mean differences for disclosure of provisions

4.3 Further analysis

As further analysis, stepwise regression was conducted. Initially, to evaluate whether size of board of directors (BOARD_SIZE), independence of board of directors (BOARD_IND), CEO duality (CEO_D), ownership concentration (OWN_CONC) and institutional ownership (INST_OWN) were necessary to predict the tendency of firms to recognize provisions (PROV_EXIST), a forward stepwise logistic regression was conducted. First of all, ownership concentration was entered into the regression equation and afterwards size of board of directors was entered. The prediction model contained two of the five predictor variables and was reached in two steps with no variables removed. The model was statistically significant indicating that predictors ($\chi^2 = 41.16$, $p < 0.000$ with $df = 2$) ownership concentration (OWN_CONC) and size of board of directors (BOARD_SIZE) accounted for approximately 2 percent of the variance of recognition of provisions (pseudo $R^2 = 0.0289$), which demonstrates a poor relationship between prediction and grouping. The odds of recognizing a provision would change by a factor of 1.01 for every percentage increase in ownership concentration ($OR_{OWN_CONC} = 1.015047$, $p = 0.000$). Moreover, the odds of recognizing a provision would change by a factor of 1.15 for the increase in the size of board of directors ($OR_{BOARD_SIZE} = 1.150686$, $p = 0.000$). This indicates that when the size of board of directors is raised by one unit (one person), firms are 1.15 times more likely to recognize a provision.

Second, a stepwise multiple regression was conducted to evaluate whether size of board of directors (BOARD_SIZE), independence of board of directors (BOARD_IND), CEO duality (CEO_D), ownership concentration (OWN_CONC) and institutional ownership (INST_OWN) were necessary to predict TP/TD ratio. As step 1 of the analysis, independence of board of directors (BOARD_IND) was entered into the regression equation and was significantly related to TP/TD ratio; afterwards CEO duality (CEO_D) was entered and again was significantly related to TP/TD ratio. Finally, the prediction model contained two of the five predictor variables and was reached in two steps with no variables removed. The model was statistically significant, indicating that predictors ($F(2, 671) = 8.18$, $p < 0.000$) independence of board of directors (BOARD_IND) and CEO duality (CEO_D) accounted for approximately 2 percent of the variance of TP/TD ratio ($R^2 = 0.0238$), which demonstrates a poor relationship between prediction and grouping. Furthermore, the correlation coefficient was -0.0390366 , indicating approximately 4 percent of the variance of the TP/TD ratio could be accounted for by independence of board of directors.

Finally, in order to evaluate whether size of board of directors (BOARD_SIZE), independence of board of directors (BOARD_IND), CEO duality (CEO_D), ownership concentration (OWN_CONC) and institutional ownership (INST_OWN) were necessary to predict disclosure of provisions (PROV_DISC), a forward stepwise logistic regression was conducted. First of all, ownership concentration was entered into the regression equation and afterwards size of board of directors was entered. The prediction model contained two

CEO duality	Provisions		χ^2	Φ
	Full disclosure	Partial disclosure		
Yes	24 (34.3)	81 (70.7)	5.4149**	-0.0896
No	196 (185.7)	373 (383.3)		
<i>Institutional ownership</i>				
Yes	204 (183.4)	358 (378.6)	20.5827***	0.1748
No	16 (36.6)	96 (75.4)		

Notes: $n = 674$ firm-year observations between the years 2005 and 2010. Expected frequencies appear in parentheses below group frequencies. ** $p < 0.05$; *** $p < 0.01$

Table XIII.
Cross-tabulation of
disclosure of
provisions and
corporate governance
variables

of the five predictor variables and was reached in two steps with no variables removed. The model was statistically significant, indicating that predictors ($\chi^2 = 30.51, p < 0.000$ with $df = 2$) ownership concentration (OWN_CONC) and size of board of directors (BOARD_SIZE) accounted for approximately 3.5 percent of the variance of disclosure of provisions (pseudo $R^2 = 0.0358$), which demonstrates a poor relationship between prediction and grouping. The odds of full disclosure of provisions would change by a factor of 1.01 for every percentage increase in ownership concentration ($OR_{OWN_CONC} = 1.017907, p = 0.000$). Moreover, the odds of full disclosure of provisions would change by a factor of 1.13 for the increase in the size of board of directors ($OR_{BOARD_SIZE} = 1.137788, p = 0.000$). This indicates that when the size of board of directors is raised by one unit (one person), firms are 1.13 times more likely to recognize a provision. The results are revealed in Tables XIV-XVI.

5. Conclusion

Disclosure is an important aspect of financial reporting quality. Since corporate governance uses disclosure and transparency as a tool for improving financial reporting quality, there are various research in literature investigating the effects of corporate governance on disclosure of information from different aspects. However, there are a few attempts to clarify the relationship between corporate governance and specific accounting treatments, specially pointing out IFRS.

Provisions recognized under IAS 37, which are new and unexplored field in accounting research, are mainly future-oriented estimations, namely, forward-looking information.

Table XIV.
Forward stepwise logistic model results for recognition of provisions

Model	Odds ratio	Coefficient	<i>z</i>
OWN_CONC	1.015047	0.0142679	4.24***
BOARD_SIZE	1.150686	0.1346755	3.88***

Notes: $n = 1,078$ firm-year observations between the years 2005 and 2010. The dependent variable was recognition of provisions (PROV_EXIST). BOARD_SIZE is the size of the board of directors; OWN_CONC is the ownership concentration, $R^2 = 0.0291$. *** $p < 0.00$

Table XV.
Stepwise regression results for TP/TD

Predictor variables	Coefficients	<i>t</i>
BOARD_IND	-0.0390366	-3.24***
CEO_D	0.008022	2.18**

Notes: $n = 674$ firm-year observations between the years 2005 and 2010. The dependent variable was total provisions/total debt ratio (TP/TD). BOARD_IND is the independence of the Board of Directors; CEO_D is the CEO duality, $R^2 = 0.0238$. *** $p < 0.00$; ** $p < 0.05$

Table XVI.
Forward stepwise logistic model results for disclosure of provisions

Model	Odds ratio	Coefficient	<i>z</i>
OWN_CONC	1.017907	0.0177488	4.62***
BOARD_SIZE	1.137788	0.1290857	2.84***

Notes: $n = 674$ firm-year observations. The dependent variable was disclosure of provisions (PROV_DISC) between the years 2005 and 2010. BOARD_SIZE is the size of the board of directors; OWN_CONC is the ownership concentration, $R^2 = 0.0358$. For recognition of provisions, results for ality and institutional ownership are illustrated in table of directors and ownership forward stepwise logistic model results for disclosure of provisions. *** $p < 0.00$

Considering the dynamic economic and business environment and accordingly changes in information needs, forward-looking changes in the reporting system are essential. Therefore, this study aims to investigate the relationship between corporate governance and provisions recognized under IAS 37.

Overall findings indicate 62 percent of 1,078 firm-year observations recognize provisions, and among the ones that recognize provisions, only 32 percent provide the standard's full disclosure requirements. Although full disclosure is unlikely to be optimal (Hermalin and Weisbach, 2012) and firms may decide to retain some private information within the firm, possibly due to their close ownership structures or for fear of losing a competitive advantage, disclosure regime and enforcement power of accounting policy-making bodies should be examined, since the regarding disclosure items in the study are mandatory not voluntary.

Moreover, firms that recognize provisions have larger board of directors and are more likely to be characterized with concentrated ownership and institutional owners compared with firms that do not recognize provisions. Also, firms with larger board of directors, greater independence of board of directors and concentrated ownership have higher TP/TD ratios. Finally, firms that make full disclosure of provisions are more likely to have larger boards, higher ownership concentration and institutional owners and less likely to have CEO duality.

As with all research, there are several limitations of this study. The study suffers from the lack of literature about provisions under IAS 37. The lack of literature directly focusing on provisions or IAS 37 appears to be one of the main limitations as well as one of the main contributions. Since this study focuses on one country, the comparison is not possible. Furthermore, research may contribute to literature by the use of other emerging economy's capital market data. Moreover, further research can cover any other mandatory disclosure information specified in IASs/IFRSs and can provide comparative results about the compliance and strictness of the mandatory disclosure regime. Also, studying the firm-specific factors affecting the disclosure regime of companies and its relation with corporate governance may provide remarkable contributions to literature. This study can be of interest to government, investors, business management, regulatory bodies, educators, researchers, accountants, auditors and scholars particularly in the field of accounting by seeking to make theoretical and practical contributions in the area of accounting disclosures and also serves as benchmark for future researches on corporate disclosures. Also, this study provides significant insights to accounting regulators who set disclosure requirements.

Note

1. Mean value of warranty provisions for manufacturing and non-manufacturing industries are 2,904,346 and 782,631.3, respectively.

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