



## **Audit Quality and Accounting Conservatism**

Nishtiman H. Mohammed<sup>a</sup> Ku Nor Izah Ku Ismail<sup>b</sup> Noor Afza Amran<sup>c</sup>

<sup>a</sup> Tunku Puteri Intan Safinaz School of Accountancy, University of Utara, Malaysia, nishtimanmohammed87@gmail.com

<sup>b</sup> Tunku Puteri Intan Safinaz School of Accountancy, University of Utara, Malaysia

<sup>c</sup> Tunku Puteri Intan Safinaz School of Accountancy, University of Utara, Malaysia

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### **Keywords**

Audit Quality,  
Accounting  
Conservatism, Turkey.

### **Abstract**

This objective of this study is to examine the impact of audit quality on accounting conservatism in Turkey. Using three different measures of accounting conservatism, we report that audit quality, in terms of brand name auditor and industry specialist auditor, is positively related to conservatism. Our results hold after controlling for operating cash flow, leverage, firm age and sales growth. Overall, the evidence is consistent that accounting conservatism complements firms in the Turkish business environment that engage with high quality auditors to mitigate agency costs.

### **Jel Classification**

M40, M49.

## **1. Introduction**

Despite the availability of several studies, the quality of accounting information remains a subject that requires in-depth investigation in different economic environments (Dechow, Ge, & Schrand, 2010: 67), including in the Turkish context. Giving a general definition to the quality of accounting information is not a simple task. A transaction or event revealed or measured by a particular accounting standard could represent good information according to one agent but not by another. The dynamic and complex firm activities generate a concrete conceptualization of the quality of accounting information. Despite this difficulty, various characteristics of the quality of accounting information are described by researchers of the topic (Burgstahler, Hail, & Leuz, 2006; Dechow et al., 2010).

Accounting conservatism represents one of the significant features of the quality of financial information. Conservatism is subjective in nature, and it is involved in most accounting conceptual frameworks. Numerous studies have examined accounting conservatism in different financial and economic environments (Basu, 1997; Ball & Shivakumar, 2005; Cullinan, Wang, Wang, & Zhang, 2012). In general, these studies have focused on conservatism as a practice of asymmetric recognition which emphasizes on the accounting norms with highest liabilities/expenses of lowest assets/revenues. The more timely recognition of bad news (losses) is often correlated with accounting conservatism (Basu, 1997).

Accounting conservatism could be affected by the characteristics of each area, such as the set of accounting standards adopted in the country. For instance, Ball, Kothari, and Robin (2000) reveal that accounting reports of firms in countries with code law systems are less conservative than those of firms in common-law systems. Moreover, Barth, Landsman, and Lang (2008) state that firms that implement International Financial Reporting Standards (IFRS) report losses on a more timely basis than those that do not. Dechow et al. (2010) report that when enforcement mechanisms are strong, such as the legal system, auditing and corporate governance loss recognition is more appropriate. External auditing represents one of the fundamental mechanisms that leads managers to practice accounting conservatism. The independent auditors' main task is to check whether or not the financial statement is prepared in accordance with the accounting standards that the organization follows.

Turkey is one of the developing countries in the emerging market. The capital market of Turkey is characterized by weak institutional mechanisms, such as weak accounting standards, law enforcement and shareholders' and creditors' protection (Yurtoglu, 2003). The Capital Market Board (CMB) of Turkey issued the Communiqué on Independent Auditing Standards in Capital Markets (Serial: X, No: 22) in 2006 in order to ensure the currency of the financial report. The report includes the independence of auditors and the legal requirements. It also regulates the quality of audit services by identifying its tenure, describing the audit scope and announcing auditing standards in line with the International Standards on Auditing (ISAs). According to the guidelines of the Communiqué report, all the listed firms on Borsa Istanbul (BIST) are required to have an independent external auditor for the fiscal year-end financial report. Consequently, a new Turkish Commercial Code was established and became effective on 1 July 2012 in order to enhance the financial report, auditing and corporate governance (Karaibrahimoglu, 2013).

It is suggested that an independent auditor constrains earnings management, particularly in countries where there is effective audit and oversight mechanisms for auditors (Becker, DeFond, Jiambalvo, & Subramanyam, 1998). However, auditors might not constrain the practices of earnings management when the institutional setting does not prompt auditors for high quality audit (Jeong & Rho, 2004; Nichols & Smith, 1983). In the environment of Turkey where there is little risk of litigation against auditors, the penalty mechanism against auditors is not fully implemented in practice and not sufficiently restrictive. This is contrary to DeAngelo's (1981) theory which states that Big4 auditors might not restrict earnings management practices in clients' firms. Thus, there would be no differences in audit quality between Big4 and non-Big4 audit firms.

According to Dechow et al. (2010), the influence of auditors on the quality of financial information is derived from their effective role in minimizing misrepresentation, deliberate or not, of the economic and financial reality of the firm. Therefore, the financial statement that is audited by an independent external auditor is more likely to be having better information content, resulting in better decisions by users, and hence, producing greater economic benefits.

The purpose of this study is to investigate the influence of audit quality measured by industry specialist auditor and auditor brand name on the level of accounting conservatism in Turkey,

in which the institutional setting does not encourage auditors to provide high quality audit. The reminder of this paper is categorized as follows: Section 2 describes the background of audit quality and previous studies on accounting conservatism; section 3 illustrates the research design; section 4 discusses the results; and section 5 concludes the paper.

## **2. Prior Research and Hypothesis Development**

### *Audit quality*

Audit quality is considered as one of the significant issues that influences the audit profession (Vanstraelen, 2000). Audit quality is also an attribute that is valued by the equity market (Franz, Crawford, & Johnson, 1998). It is suggested that high quality audit services improve the quality and credibility of the financial statement from the perspective of other contracting parties, particularly, other parties that are not involved in the preparation of the financial statement (Wallace, 2004). The reliability and accuracy of financial information have a fundamental role in ensuring the quality of auditing. Specifically, earnings conservatism, in the wave of accounting scandals in the United States (US) and many European countries, has highlighted the importance of audit quality.

Efficient auditing of firms can confirm the validity of the presented financial numbers, evaluate the extent to which managers maintain financial reporting integrity and ensure the firms' monitoring structure and effectiveness. The consequences of a good audit report are that it discourages earnings management and improves investors' trust and firm value (Balasubramanian, Black, & Khanna, 2010; Black, 2001; Borokhovich, Brunarski, Crutchley, & Simkins, 2004). In other words, high quality auditing could enhance investors' protection and firm value (Black, 2001). It is suggested that a good audit report would seek to ensure high quality accounting disclosure by reducing information asymmetry among the users of accounting information, and consequently, decrease the cost of equity and improve the terms of financing (Ashbaugh & Pincus, 2001; Botosan & Plumlee, 2002). However, investors would avoid to their capital market due to the reluctant of information asymmetry that could also create a situation of more dispersed financial analyst forecast, market illiquidity and higher cost of equity (Healy, Hutton, & Palepu, 1999; Lang & Lundholm, 1996). Therefore, being audited by a Big4 auditor could reflect the firms' determination to produce high quality financial reports and to offer stakeholders with proprietary and private information that consequently can minimize the extent of accounting manipulations (Palea, 2007).

The agency theory is address to examine the monitoring role of the external auditor in aligning the interests between the agent and the principal (Jensen & Meckling, 1976; Watts & Zimmerman, 1986). The external auditor is an essential mechanism of corporate governance to improve the reliability of the financial report. According to agency theorists, external auditors not only explicit of shareholders' interests; they also assist in corporate management work in terms of access to capital, decreased cost of capital and inherent restrictions on management actions (Firth, 1997). Owusu-Ansah (1998) and Apostolou and Nanopoulos (2009) report that external auditors improve the disclosure quality and practices at firm and regulatory levels.

In this context, several studies have used different indirect measures for audit quality, such as audit firm size, to investigate the influence of audit quality. DeAngelo (1981b) analytically proves that audit quality of large audit firms, such as Big4 audit firms, is higher than small-size audit firms (non-Big4). Several studies that have utilized audit firm size as a proxy for audit quality, have suggested that higher levels of audit quality by Big4 firms are associated with higher levels of earnings conservatism (Chung, Firth, & Kim, 2003; Iatridis, 2012; Krishnan, 2003). Big4 audit firms possess high reputational capital and are exposed to greater litigation risk. Therefore, based on the proposition of the reputational capital theory, large audit firms are more likely to provide high quality services in order to protect their reputational capital (Beatty, 1989). On the other hand, deep pockets advocators suggest that Big4 audit firms possess more wealth and capabilities; thus, they are more likely to provide high quality audit services in order to mitigate litigation risks inherent in audit services (Dye, 1993). The rationale beyond the deep pockets hypothesis is that shareholders and other parties involved in contractual agreement are looking for big audit firms in order to gain restitution in case of any litigation risk. This is because big audit firms have more resources and wealth. Several previous studies have focused on examining the influence of audit firm size as a proxy for audit quality (Francis and Wang, 2008; Iatridis, 2012; Paulo, Cavalcante, & Paulo, 2013); auditor tenure (Ghosh & Moon, 2005; Stanley & DeZoort, 2007) on earnings conservatism. This study focuses on examining the association between audit quality measured by brand name auditor and industry specialist auditor on accounting conservatism. Several studies have investigated the association between audit quality

measured by auditor brand name and earnings quality. Cano-Rodríguez (2010), for example, address the relationship between auditor brand name and conditional and unconditional accounting conservatism. The finding of the study shows that Big4 auditors enhance the quality of information by encouraging clients to increase conditional conservatism in their financial statements.

Using a sample of non-financial listed firms from two different institutional settings (common-law and code-law), Iatridis (2012) examined the influence of auditor brand name on earnings management and accounting conservatism. The results of the study indicate clients in common-law countries, like South Africa, are more conservative with high level of earnings quality as they react to bad news on a more timely basis. Becker et al. (1998) and Reynolds and Francis (2000) for example, report that high quality auditors (in their case, Big6) are more capable of detecting earnings management due to their superior knowledge; they also act to restrict opportunistic earnings management in order to protect their reputation. Becker et al. (1998), Francis, Maydew, and Sparks (1999) and Reynolds and Francis (2000) find that discretionary accruals for clients of Big6 auditors are lower than those of non-Big6 auditors. Teoh and Wong (1993) show a positive correlation between auditor brand name and earnings response coefficient.

In addition, few studies have directly tested the correlation between audit quality measured by industry specialist auditor and accounting conservatism. A number of studies have provided evidence that an industry specialist auditor gives a higher level of assurance than a non-specialist auditor (Beasley, Carcello, Hermanson, & Lapides, 2000; Craswell, Francis, & Taylor, 1995). Balsam, Krishnan, and Yang (2003) investigated the correlation between industry specialist auditor and earnings quality. The findings suggest that earnings quality for clients of industry specialist auditors is higher than for clients of non-specialist auditors. Using a large sample of clients of Big6 auditors, Krishnan (2003) examined the level of discretionary accruals on industry specialization. The findings of the study suggest that clients of non-specialist auditors have higher levels of discretionary accruals than clients of specialist auditors. The finding of the study is consistent with the perception that audit quality is higher for industry specialist auditors than non- specialist auditors. Owhoso, Messier, and Lynch (2002) report that the ability to detect errors within their industry by industry specialist auditors is greater than non-specialist auditors. Dunn and Mayhew

(2004) document that disclosure quality of firms audited by industry specialist auditors is ranked higher by financial analysts. This suggests a positive association between industry specialist audit firms and financial disclosure quality. Gramling and Stone (2001) find that earnings of clients of industry specialist auditors are presented more accurately than clients of non-specialist auditors. Carcello and Nagy (2004) provide evidence from the US that there is a negative correlation between industry specialist auditors and financial reporting fraud. Meanwhile, Lys and Watts (1994) find that there are no fundamental differences in the levels of auditor litigation between specialist and non-specialists auditors.

In summary, the results of prior studies on brand name auditor and industry specialist auditor are both in favour of and against the quality of audit. The recent Turkish Commercial Code was established in order to enhance the quality of audit and accounting information for firms listed on BIST. Audit quality depends to a large extent on its application of the practices of accounting conservatism by clients. Hence, this study investigates the effect of brand name auditor and industry specialist auditor on accounting conservatism.

#### *Conservatism and Turkey*

Studies on accounting conservatism go back a few decades and have been written by a number of well-known authors in the field, such as Basu (1997) and Watts (2003), who investigated the impact of accounting conservatism on the financial statement and its users. Ruch and Taylor (2015) have two points of view regarding the informational roles of accounting conservatism. The first viewpoint sees the function of accounting conservatism as a technique to capture information used to measure the market value of equity for investment decision purposes; while, the second viewpoint is on the primary function of accounting conservatism as a technique to provide information that permits contracting parties to assess whether or not contract obligations are well performed. Contracting parties, especially creditors, prefer to see timely reporting of bad news about earnings. Since the main purpose of external audit is to certify that the financial statement is fairly presented, accounting conservatism is often utilized as a method of accounting quality (Francis, Schipper, & Vincent, 2005). The principles of accounting conservatism have impacted accounting theory and practice for centuries (Basu, 1997). Conservative reporting represents higher accounting quality compared to more aggressive accounting practices and

involves the timely recognition of bad news in earnings (Basu, 1997; Ball & Shivakumar, 2005; Watts & Zimmerman, 1986; Watts, 2003).

A few studies have investigated accounting conservatism in the Turkish setting. Balsari (2010) evaluated the influence of adopting the IFRS on the conservatism level of financial reports for firms in Turkey. The study results show that the adoption of IFRS boosts both timeliness and earnings conservatism (asymmetric timeliness). The influence of IFRS adoption is greater for financial firms, small-size firms and for firms having low debt levels. The author examined the influence of the change in accounting regime on earnings conservatism in Turkey. Turkey represents an unfavourable environment because of the country's code-law system, weak corporate governance, poor institutional settings, such as accounting standards, shareholders' protection, law enforcement and a middle-income developing market. Çalışma (2013) examined the association between conditional conservatism and value relevance of earnings on a sample of 106 manufacturing Turkish listed firms. The findings of the study suggest that the incorporation of conditional accounting conservatism in the financial statement reduces the value relevance of earnings in Turkish manufacturing firms. The author proposes that the study results support the decision of the International Accounting Standards Boards (IASB) for the elimination of accounting conservatism from the conceptual framework.

Audit quality is about the fair representation of financial information and a significant component of accounting quality is conservatism in reported earnings (Francis et al., 2005). Only a number of studies have investigated conservatism for firms in Turkey. Generally, previous studies have emphasized on the adoption and implementation of additional regulations, such as the IFRS and other regulations, following the financial crisis on accounting quality. Thereby, accounting conservatism is an appropriate topic to investigate the influence of auditor brand name and industry specialist auditors for firms in Turkey.

#### *Research Hypotheses*

Previous studies have suggested that firms audited by Big4 firms are more likely to present high quality audit, value relevant earnings and less accounting errors in their financial statement (Francis & Krishnan, 1999; Krishnan, 2003). Meanwhile, these kinds of firms are subject to achieving more favourable audit reports. According to DeFond and Jiambalvo (1994), big audit firms are more likely to produce an independent and objective audit report



and less inclined to give into managers' opportunistic behaviour. In addition, firms audited by Big4 firms have less tendency for financial fraud (Carcello & Nagy, 2004) as well as high levels of earnings conservatism (Chung et al., 2003).

Cano-Rodríguez (2010) examined the association between auditor brand name and accounting conservatism. The study results indicate that providing high audit quality by external audit firms promotes clients' request for high levels of conditional accounting conservatism. Iatridis (2012) finds that firms which engage with high quality auditor in common-law countries, such as South Africa, possess more incentives to implement high levels of accounting conservatism and high earnings quality as they recognize bad news on a timely basis. Becker et al. (1998) and Reynolds and Francis (2000), for example, report that high quality auditors (in their case, Big6) are more capable of detecting earnings management due to their superior knowledge; besides, they restrict opportunistic earnings management in order to protect their reputation. Moreover, Lim (2011) indicates that there was a negative relationship between audit quality and accounting conservatism in 1998; while in 2002, clients hired high quality auditors and demanded high levels of accounting conservatism. This was due to the collapse of one of the big audit firms in 2002 that consequently attracted firms' attention to rely on the monitoring role of external audit firms.

***H1: Turkish firms audited by Big4 auditors demand high levels of accounting conservatism.***

Proponents of industry specialist auditors have suggested that specialist audit firms in a particular economic sector are necessary to obtain more knowledge and experience about clients' activities and to provide better services. Kwon (1996) reports that industry specialist auditors possess the industry expertise that leads to improving the understanding of clients' business. Thereby, audit firms specialized in a particular sector would be more able to provide high audit quality services and better quality of reported accounting information (Keefe, King, and Gaver, 1994; Sun and Liu, 2011). Meanwhile, the fact that industry specialists can offer higher audit quality suggests that they could charge the client more or higher audit fees. According to Craswell et al. (1995), audit firms develop industry-specific skills and expertise over and above ordinary auditors' expertise in order to obtain a reputation as industry specialist. Therefore, audit firms require normal returns on their

investment in order to invest in industry expertise, and thus, be able to charge higher audit fees compared to non-specialist auditors.

Keefe et al. (1994) showed that industry specialist auditors are correlated with less breaching of the Generally Accepted Auditing Standards (GAAS). Wright and Wright (1997) indicate that industry specialists have greater ability to produce alternative hypotheses when attempting to recognize accounting errors. Solomon, Shields, and Whittington (1999) investigated the knowledge of industry specialist auditors and find that they possess more insights into non-error explanations for unpredicted ratio fluctuations in analytical procedures. Owosho et al. (2002) find that the effectiveness of detecting errors for auditors who are working within their industry is higher in staff working papers during the audit review process. Moreover, Balsam, Krishnan, and Yang (2003) and Krishnan (2003) evinced that industry specialist auditors are correlated with lower levels of earnings management. In addition, the occurrence of fraud is lower (Carcello & Nagy, 2004); and the quality of firms' disclosure is better (Dunn & Mayhew, 2004) for firms audited by industry specialist auditors. Kwon, Lim, and Tan (2007) find a positive association between industry specialist auditors and earnings informativeness in an international setting of 28 countries with different legal and regularity frameworks. Furthermore, Krishnan (2005) provides empirical evidence that is consistent with the notion that specialist auditors acquire resources, industry expertise and the incentives to detect losses and encourage clients to in a timely manner. The author further indicates that clients of industry specialist auditors report losses in a more timelier manner than clients of non-specialist auditors. Therefore, this study assesses whether or not there is a positive influence of industry specialist auditors on the level of accounting conservatism in Turkish listed firms.

***H2: Clients audited by industry specialist auditors are more conservative than clients audited by non-specialist auditors.***

### **3. Research Design**

#### *Sample*

This study is based on a sample of Turkish firms listed on BIST from 2011 to 2015. Static panel data is employed in which the same firms serve on the panel over a five-year period. The main advantage of using panel data is that it offers a sensitive measurement to the

changes between points in time (Cavana et al., 2001). The years from 2011 until 2015 are selected as the annual reports of all listed firms were available when data collection started.

#### *Calculation of accounting conservatism*

Following Ahmed and Duellman (2007), the main test of this study is based on accrual-based conservatism as suggested by Givoly and Hayn (2000). The accrual-based measure of accounting conservatism includes income before extra-ordinary items minus cash flow from operations plus depreciation expense divided by total assets, and averaged over a 5-year period, centered on year  $t$ , multiplied by  $-1$ . Positive values of accrual-based indicate greater conservatism. The essence underlying this measurement is that the result of conservative accounting is persistently negative. Conservative accounting is higher when the negative average accruals over the respective period is higher. Dividing over a number of periods indicates that the influence of any temporary large accruals are diminished, since accruals tend to invert within a one to two-year period (Richardson, Sloan, Soliman, & Tuna, 2005). Accrual-based measure of accounting conservatism is not influenced by economic rents or growth opportunities. Nevertheless, it ignores the influence of conservatism in prior periods; hence, it does not reflect total or accumulative conservatism.

The asymmetric timelines measure of conservatism estimated cumulatively over several prior years as suggested by Roychowdhury and Watts (2007) is also utilized as a second measurement for accounting conservatism in this study. This measure captures the influence of the negative and positive returns on earnings. Roychowdhury and Watts (2007) note that Basu's (1997) measure of accounting conservatism ignores the impact of conservatism prior to the estimation period and that it might not properly reflect total conservatism. Hence, Roychowdhury and Watts (2007) recommend that the Basu model could provide a better measure of conservatism if it is estimated cumulatively over the past three years.

$$NI_{it-5} = \alpha_0 + \beta_1 D_{it-5} + \beta_2 R_{it-5} + \beta_3 D_{it-5} * R_{it-5} + \varepsilon_{it-5}$$

Where  $NI_{it-5}$  represents income before extraordinary items cumulative for firm  $i$  from year  $t-5$  divided by total assets at the beginning of the fiscal year;  $D_{it-5}$  is an indicator variable set equal to 1 if the market adjusted annual stock returns is negative and 0, otherwise; and  $R_{it-5}$  is the market adjusted stock returns at the end of the fiscal year  $t-5$ .

*Auditor brand name and industry specialist auditor*

Brand name auditor indicates whether or not firms are audited by one of the Big4 audit firms. Brand name auditor is measured in this study following Balsam, Krishnan, and Yang (2003), Caramanis and Lennox (2008) and Francis (2004). The proxy for brand name auditor is  $AUDbig4_{it}$ . Firms take a value of 1 if they employ one of the Big4 audit firms to audit their financial statements; and 0 if the firms employ non-Big4 audit firms as their external auditor.

To indicate industry specialization of the independent auditor, this study follows the measure used by Keefe et al. (1994) and Sun and Liu (2011) to categorize an audit firm as an industry-specialist. The proxy for industry specialization ( $AUDISA_{it}$ ) takes the value of 1 if the audit firm has clients from the same industry, representing 15% or greater of its net revenue, and otherwise, 0.

*Regression model*

The following regression model developed by Givoly and Hayn (2000) is used to assess the level of accounting conservatism. Meanwhile, this study includes the variables of brand name auditor ( $AUDbig4_{it}$ ) and industry specialization ( $AUDISA_{it}$ ) to capture the influence of audit quality on accounting conservatism. Model 1 employed to test the hypotheses is explained as follows:

$$ACCR_{it-5} = \beta_0 + \beta_1 AUDbig4_{it-5} + \beta_2 AUDISA_{it-5} + \beta_3 OCFL + \beta_4 LEVE + \beta_5 FAGE + \beta_6 SAGR + \varepsilon_{it-5}$$

Where  $ACCR_{it-5}$  is accruals conservatism;  $AUDbig4_{it-5}$  is the log of auditor brand name; and  $AUDISA_{it-5}$  is the log of industry specialist auditor. Following Ahmed and Duellman (2007), the control variables utilized in this study are firm size, leverage and litigation risk. Firm size represents the natural log of average total assets ( $SIZ_{it-5}$ ). Large firm sizes have higher political costs that encourage them to practice more accounting conservatism (Watts & Zimmerman, 1986). Leverage is the total long-term liabilities divided by total assets ( $LEV_{it-5}$ ). According to Ahmed, Billings, Morton, and Stanford-Harris (2002), the level of conservatism is greater for firms suffering from high bondholder-shareholder conflicts. Litigation risk is a dummy variable equivalent to 1 if the firm is in a technology sector, otherwise, 0 ( $LIT_{it-5}$ ). Ahmed and Duellman (2013) report that firms that have higher litigation risk would be more likely to adopt accounting conservatism to mitigate these risks.

Accounting conservatism is also measured in this study using the asymmetric timeliness by Roychowdhury and Watts (2007). This asymmetric timeliness measure of conservatism is a computes Basu (1997) measure over the past three years in order to provide a better estimation for conservatism. The following equation is Roychowdhury and Watts' (2007) measure of conservatism, including the control variables (*SIZ*, *LIT*, *LEV*):

$$NI_{it-5} = \beta_0 + \beta_1 DR_{it-5} + \beta_2 R_{it-5} + \beta_3 DR_{it-5} \times R_{it-5} + \beta_4 AUDbig4_{it-5} + \beta_5 AUDISA_{it-5} + \beta_6 OCFL + \beta_7 LEVE + \beta_8 FAGE + \beta_9 SAGR + \varepsilon_{it-5}$$

Model 2

Where  $NI_{it-5}$  is income before extraordinary items divided by beginning of fiscal year total assets;  $DR_{it-5}$  is an indicator variable that is equal to 1 if the market-adjusted returns for firm  $i$  during year  $t$  is negative, and 0, otherwise;  $R_{it-5}$  is market-adjusted annual stock returns for firm  $i$  in year  $t$ .

Following Givoly and Hayn (2000) and Alam and Petruska (2012), we use an additional measure of accounting conservatism: Market-to-book (MTB) ratio. Model 3 provides the regression models utilized to investigate the relationship between external monitoring mechanisms (e.g., *AUDBIG4* and *AUDISA*) with the MTB ratio of conservatism. The control variable, leverage (*LEVE*) is predicted to have a negative coefficient because profitable companies are more likely to possess lower leverage (Myers, 1977). We predict a positive relationship between firm age (*FAGE*) with clients' incentive to engage with a strong monitoring mechanism. Older firms are more likely to be controlled by family founders and this could enhance their entrenchment effects (Liu, Ahlstrom, & Yeh, 2006; Wong, Chang, & Chen, 2010). Thus, to create a protected environment for investors, particularly minority shareholders, older firms are likely to adopt high accounting conservatism (Al-Sraheen, 2014). We control for sales growth, measured by the annual percentage growth in total sales because sales growth is likely to influence ACCR for three reasons. First, sales growth will influence accruals, for instance, receivables and inventories, which in turn, influence ACCR. Second, for firms with declining sales, accrual is likely a poor measure of accounting conservatism. Third, large growth in sales often inflates market expectations of future cash flows, which might influence ACCR. Cash flows from operations is another control variable in this study, and we predict a positive relationship following Ahmed et al. (2002) and Lennox et al. (2012) that profitable firms are more conservative than others.

#### 4. Results and Discussion

Table 1 lists accrual-based conservatism as a measure of accounting conservatism, followed by corporate governance variables, particularly external mechanisms and the control variables. A dichotomous measurement, Big4 and non-Big4/Specialist auditor and non-specialist auditor are used as audit quality measurements in this study.

**Table 1.** Descriptive statistics for the variables of the study

Variables	N	Mean	Min	Max	Std. Dev
1.ACCR	728	-0.029	-0.599	0.275	0.813
2.AUDBIG4	728	0.527	0	1	0.499
3.AUDISA	728	0.176	0.000	0.820	0.223
4.OCFL	728	10.485	2.833	15.296	2.038
5.LEVE	728	0.482	0.000	3.804	0.287
6.FAGE	728	35.347	1	80.00	18.414
7.SAGR	728	-0.023	-0.009	-6.543	0.936

Source: Author's compilation

Table 1 show the average value of ACCR is -0.0295. This value is lower than the average value of ACCR at 0.010 and -0.004, reported by Ahmed and Duellman (2007) and Ahmed, Billings, Morton, & Stanford-Harris (2002), respectively. This difference could be due to different institutional settings, for instance, ownership structure, as Turkish firms are characterized by high concentrated ownership in contrast to dispersed ownership in the US. This ratio indicates that the level of conservatism amongst Turkish firms is low. The average number of firms engaged with Big4 audit firms is 0.527 and the average value of SPECLST\_MS is 0.167 for the full sample. The average operating cash flow (OCFL) measured by is 10.485 with a minimum value of 2.833 and a maximum value of 15.296. The mean ratio of total debt to total assets (LEVE) of the firms in the sample is 0.482 with a minimum value of 0.287 and a maximum value of 3.804. The mean level of firm age (FAGE) is 33.825 with a minimum and maximum value of 1 and 80, respectively. This range is very close to the study conducted by Gacar (2016) in the context of Turkey that reports a mean value of 39.910, standard

deviation of 15.211, a minimum of 0.60 and a maximum of 81.00. The mean of depreciation is 8.890 with a minimum of 0.693 and a maximum value of 17.000 with standard deviation of 2.328. The mean of sales growth is -0.023 with a minimum of -0.009 and a maximum value of -6.543 with standard deviation of 2.328.

The correlation coefficient between accounting conservatism and the variables display the expected sign. As with previous studies, the highest correlation coefficient is for FAGE. Further, AUDBIG4, AUDISA and FAGE have positive correlation with ACCR. In contrast, LEVE has a negative correlation with ACCR. Variables exhibiting insignificant results are OCFL and SAGR. Table 2 displays that there are no correlation coefficient values above 0.90; this reveals that there is no sign of potential multicollinearity (Hair, Anderson, Babin, & Black, 2010). Next, this study discusses the multivariate analysis used to test the developed hypotheses. According to the findings reported in Table 3, for audit quality measured by brand name auditor and industry specialist auditor and control variables (OCFL, LEVE, FAGE and SAGR), the values are 90.74, 0.11 and 0.16 of the total variance of accounting conservatism at the 1% level of significance in Model 1, Model 2 and Model 3.

**Table 2.** The Correlation Matrix of the Variables of the Study

Variables	1	2	3	4	5	6	7
1.ACCR	1						
2.AUDBIG4	<b>0.08</b>	1					
3.AUDISA	<b>0.09</b>	<b>0.21</b>	1				
4. OCFL	-0.04	-0.07	<b>0.35</b>	1			
5. LEVE	<b>-0.08</b>	<b>0.08</b>	-0.01	0.08	1		
6. FAGE	<b>0.11</b>	<b>0.12</b>	<b>0.31</b>	0.05	0.06	1	
7. SAGR	0.01	0.04	-0.01	<b>-0.14</b>	0.03	<b>-0.08</b>	1

The regression results in Model 1 show that audit quality in terms of AUGBIG4 has a significant influence on the demand of clients for a strong monitoring mechanism in terms of accounting conservatism. The analysis in Table 3 shows that each brand name auditor leads to an increase in accounting conservatism by some 0.066 (0.66%).

**Table 3.** Results of the Regression analysis

Item	ACCR Model 1		NI Model 2		MTB Model 3	
	Coefficient	Standard Errors	Coefficient	Standard Errors	Coefficient	Standard Errors
R	-	-	0.204***	0.054	-	-
DR	-	-	1.075**	0.340	-	-
DR*R	-	-	-0.453**	0.157	-	-
AUDBIG4	0.066***	0.163	0.182**	0.073	0.338**	0.120
AUDISA	0.250**	0.111	0.323**	0.128	1.029***	0.161
LEVE	-0.399**	0.178	-0.001	0.002	-0.020***	0.004
FAGE	0.007**	0.002	-0.036	0.123	0.225**	0.073
SAGR	-0.001	0.000	0.029	0.025	-0.081	0.029
OCFL	1.970*	1.180	-0.127	0.055	-0.161*	0.088
Wald chi2/ R <sup>2</sup>	90.74		0.16		0.11	
Prob > chi <sup>2</sup>	0.000		0.000		0.000	

Notes: \* = significant at 10%, \*\* = significant at 5% and \*\*\* = significant at 1%.

This relationship is not only direct but also highly significant at the 1% level of significance ( $p = 0$ ). This result concurs with that documented by Ararat et al. (2015a, 2010) and Cano-Rodríguez (2010). The implication is that there is a positive effect of AUGBIG4 on ACCR. Brand name auditor has an essential role to maintain conservatism practices in reported earnings (Basu, 1997). The results of AUDISA indicate that for every increase of specialist auditor, there is an increase in the level of accounting conservatism. The result shows a 25% impact on ACCR and this relationship is also highly significant at the 5% level of significance. This reflects that AUDISA is more likely to enhance the quality of the financial report because audit firms specialised in a specific industry are more likely to apply high conservatism practices. This view is supported by Krishnan (2003) who report that auditees involved with



industry specialist auditors, are less likely to be involved in high discretionary accruals. Vinten et al. (2005) argue that industry specialist auditors are more likely to reduce discretionary accruals adopted by management than non-specialist auditors. It is logical to suggest that AUGBIG4 and AUDISA are more experienced and prudent and they have strong incentives and abilities to select high accounting conservatism. This study's results are in line with the agency theory's propositions that corporate governance mechanisms are considered as important factors to mitigate agency cost between agents and principals. For the control variables, FAGE and OCFL are positively correlated with accounting conservatism; while LEVE and SAGR are negatively correlated with accruals conservatism. The results of Model 2 and Model 3 are generally consistent with the result of Model 1. However, the result of AUGBIG4 is decreased from 1% in Model 1 and 5% level of significance for both Model 2 and Model 3; while, the result of AUGISA is significant at the 5% level of significance for Model 2 and 1% level of significance for Model 3.

## **5. Conclusion**

We examine whether audit quality, in terms of brand name auditor and industry specialist auditor, influence the quality of financial reporting, specifically accounting conservatism. Using three different proxies of accounting conservatism, we find accounting numbers reported by Turkish firms are conservative. The research hypotheses are on the relationship between the quality of audit (e.g., brand name auditor and industry specialist auditor) and the level of conservatism. According to the evidence presented, we note that conditional conservatism is greater in the numbers reported by firms audited by Big4 auditors and industry specialist auditors as opposed to Non-big4 auditors and non-specialist auditors. Therefore, Big4 auditors and industry specialist auditors provide higher quality audit services which positively influence the level of conservatism. We suggest that future studies include other attributes of corporate governance, particularly ownership structure or even the quality of accounting information, such as value relevance, earnings management and the relationship between the study constructs before and after the regulatory changes in 2012. In addition, other methods of data collection, such as questionnaire and interviews with analysts, auditors and professionals involved with the audit work could be used to verify that these professionals contribute to better quality of information.

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