University of Huddersfield

University of Huddersfield Repository

Al-Najjar, Basil

Corporate governance and audit features: SMEs evidence

Original Citation

Al-Najjar, Basil (2018) Corporate governance and audit features: SMEs evidence. Journal of Small Business and Enterprise Development, 25 (1). pp. 163-179. ISSN 1462-6004

This version is available at http://eprints.hud.ac.uk/id/eprint/34441/

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: E.mailbox@hud.ac.uk.

http://eprints.hud.ac.uk/

Corporate Governance and Audit Features: SMEs Evidence

Basil Al-Najjar

Abstract

Purpose: This study investigates the effect of corporate governance factors on audit features, namely, audit fees and the selection of big 4 audit firms within the UK SMEs context.

Design: We use different regression models to investigate the impact of corporate governance characteristics on audit features, and employ cross-sectional –time series models as well as 2 Stages Least Squares (2SLS) technique. In addition, we have used logit analysis to examine the effect of corporate governance factors on the selection of Big 4 audit firms.

Findings: We provide new evidence that governance mechanisms in SMEs affect different audit features. Our results show that corporate governance mechanisms are important in determining audit fees. We detect a positive impact of board independence, audit meeting and board size on audit fees. We also report evidence that governance factors determine the selection of big 4 audit firms. In particular, we report that independent directors and audit diligence positively affect the decision to select big 4 audit firms.

Originality: This paper investigates the under-researched relationship between audit features and corporate governance using UK SMEs. In so doing, we aim to provide new insights into this relationship within the SMEs context.

Keywords: audit fees; audit quality; corporate governance; SMEs

Introduction

The main aim of this study is to investigate the under-researched relationship between corporate governance mechanisms and audit fees within SMEs context. Indeed, such relationship has been investigated in large firms (Abbott et al., 2003; Goodwin-Stewart and Kent, 2006; Knechel, 2016), yet we find no evidence of this relationship within the SMEs context. We adopt this framework for different reasons. First, there is growing evidence that governance features are important in SMEs as in large firms. It is found that good corporate governance will bring better alternatives for SMEs and provides SMEs with effective strategies and best practices to access different resources and enhances better management decisions (Drucker, 1992; Sparrow, 1993). Accordingly, we aim to investigate in more details the theoretical and empirical aspects of corporate governance and audit features in SMEs using panel data set and to expand our knowledge of the audit features within the SMEs context. Second, investigating SMEs is very important in the UK; for example, in 2007, 99.9% of the businesses were SMEs. In addition, SMEs are a key employer in the UK with approximately 59.2% of private sector employees. From the macro-level perspective, SMEs represent 50% of the UK gross value added and 51.5% turnover (BIS, 2009). Hence, our study has an importance for policy makers and managers for a key Sector in the UK. Finally, Afrifa and Tauringana (2015) detect that corporate governance is related to SMEs performance in the UK, however, they reported some differences in the role of corporate governance factors between small and medium-size firms. Hence, investigating the role of corporate governance in SMEs will be of importance and will add to our understanding of the determinants of audit fees.

An important strand of the empirical literature aims to examine different audit features. For example, the factors affecting audit fees (see among others; Simunic, 1980; Simon and Francis, 1988; Low et al., 1990; Lifschutz, et al., 2010; Knechel, 2016). From the UK context, Taylor and Baker (1981), Chan et al. (1993), Clatworthy and Peel (2007) have investigated different aspects of audit fees. O'Sullivan and Diacon (1994) investigate the link between audit fees and internal corporate governance. They argue that internal corporate governance mechanisms have a negative impact on audit fees. Their results show that firms with stronger internal corporate governance pay less audit fees, indicating that more strict control of auditing comes from internal audit committee and in turn, external auditors' assurance and assessment are less important. In contrast, Francis (2004) suggests that there is a positive association between audit quality and audit fees, and firms with better quality audit will eventually improve financial reporting process, and consequently minimise the likelihood of having a qualified opinion (the opinion assessed by auditors whereby a firm's financial statement is prone to misstatement).

In this study, we aim to provide new evidence on the link between corporate governance and audit features from UK SMEs context. In so doing, we shed light on the under-researched issue of corporate governance in SMEs, one significant reason behind such limited evidence is the data availability "regarding corporate governance" for such enterprises. From around 2550 SMEs (our main sample) only listed SMEs provide the required information.

In particular, we aim to answer the following question: Can corporate governance affect audit fees and audit quality? This paper is the first major study to investigate these issues in the UK SMEs context. Our results show that corporate governance is important in determining audit fees, with a positive impact of board independence, audit meeting, and board size on audit fees. Also, we detect some evidence of a negative relationship between audit independence

and audit fees, supporting the supply side of audit fees. Finally, we report that independent directors and audit diligence positively affect the decision to select one of the big 4 audit firms.

The remainder of this paper is set as follows: Section 2 discusses the literature of audit features; Section 3 presents the main hypotheses to be analysed; Section 4 provides the data and methodology; Section 5 outlines the empirical findings of audit fees model; Section6 highlights the audit quality. Finally, Section 7 concludes.

Literature Review

In this section, we aim to discuss the theoretical framework and the empirical evidence regarding the audit features. We start the discussion with the theoretical and economic framework underlying audit features and then we discuss the empirical evidence.

Theoretical framework

We follow the economic framework of Carcello et al. (2002) and Simunic and Stein (1996) and argue that audit fees reflect the financial related costs of efficient and active auditors; such costs vary depending on different financial and governance features of the audited firm. The importance of corporate governance on audit features, such as audit fees, has increased after the legal authorities increase their emphasis on the importance of internal monitoring in running firm operations (see, for example, Cadbury report, 1992; Smith report, 2003).

The theoretical aspect of audit fees literature is based on two strands, namely the demand side perspective, and supply side point of view (see, Abbott et al., 2003; Goodwin-Stewart and Kent, 2006). A positive association between audit fees and corporate governance is based on the demand perspective of audit fees. This positive relationship indicates that firms with good

corporate governance mechanisms are more likely to demand more audit services to alleviate agency costs and thus resulting in higher audit fees (Abbott et al., 2003). In contrast, the supply side view sustains a negative link between audit fees and corporate governance features. This is due to effective and active firms' internal control mechanisms that will put pressure on external auditors to reduce control risk and in turn decrease the auditing hours. Different studies have supported the demand side; for example, Carcello et al. (2002) detect the importance of board features on audit fees. Regarding the audit committee, Abbott et al. (2003), Lee and Mande (2005) and Goodwin-Stewart and Kent (2006) report that audit meetings, audit independence and audit size increase audit fees. In contrast, Tsui et al. (2001) argue that firms with strong internal corporate governance aspects are less likely to demand more audit assessment and pay more audit fees. Accordingly, it is important to investigate the demand/supply side in our sample by including different internal monitoring mechanisms such as board and audit characteristics as internal monitoring tools.

Empirical Evidence

Audit quality can be seen as auditors' ability to report any misstatements detected in the auditing process (see, for example, Mohamed and Habib, 2013; Knechel, 2016). Different researchers have argued that the likelihood of auditors to detect misstatements is related to audit features such as reputation, audit firm size and audit independence (Knechel, 2016; Habbash and Alghamdi, 2017). Paying high audit fees might reflect auditor efforts and quality (Chen et al., 2016). Indeed, large audit firms (Big 4 or equivalent) aim to endure their reputation as well as have better training programmes and hence intend to provide a proper audit report (high quality) (Eshleman and Guo, 2014; Habbash and Alghamdi, 2017). Thus, large audit firms, if compared to their small counterparties, can be seen as an active monitoring tool for firms' financial statements (Asthana et al., 2015).

Simunic (1980) points out that exposure to loss, audit quality and other firm-specific factors result in alterations in audit fees. As mentioned by Abbott et al. (2003), audit committees infer three main roles toward external auditors: pressurise management to appoint reputed external auditors; demand greater audit assurance from external auditors. Simunic and Stein (1996) relate audit assurance (demanded by audit committees) with audit quality; audit committees can eradicate dismissal threat of auditors.

Previous studies on the determinants of audit fees have emphasised on corporate governance and financial factors as drivers affecting audit fees. Proper internal corporate governance mechanisms improve transparency of financial statements and would help auditors in their monitoring role and thus auditors would be more able to provide accurate audit opinions (Khalil and Ozkan, 2016). Researchers have argued that internal corporate governance mechanisms, such as the existence of audit committee, affect the level of external audit fees. This is supported by McMullen (1996) who observes an inverse link between firms that engage in fraudulent practices and the presence of audit committee. This implies that the existence of an audit committee helps in improving better audit quality and financial reporting practices for a financially sound firm.

Others find that audit committee independence is an important driver of audit fees. An audit committee with a majority of independent members is likely to infer independent views and strict monitoring (see, for example, McMullen and Raghunandan, 1996). Hence, such independent audit demands more audit assurance from external auditors and thereby resulting in high audit fees. Rainsbury et al. (2009) investigate a sample of 87 New Zealand firms and report a positive link between audit fees, in one hand, and total assets and account receivables/inventory, on the other. Interestingly, they find no evidence on the relationship

between the quality of audit committee and audit fees. In a similar vein, Carcello et al. (2002) examine the relationship between the audit committee and audit fees and report that board diligence (number of board meetings) and independence (percentage of independent directors on board) are positively related to audit fees. Accordingly, boards meeting more frequently and composed of independent directors will require more audit assurance from external auditors to enhance financial reporting quality, leading to high audit fees. Furthermore, they find that audit committee independence infers a positive link with audit fees as well as board features have an impact on audit fees. Goddard and Masters (2000) observe that audit features are not associated with audit fees within the UK setting. Abbott et al. (2003) detect that the independence of audit committee has a significant positive link with audit fees. Their evidence on audit fees is in line with the demand size perspective. However, they report no evidence for the effect of audit meeting frequency on audit fees.

In contrast, Collier and Gregory (1996) support the supply side of audit fees in which audit committees infer a negative relationship with audit fees in UK sample. The reason behind the negative aspect is that as there is greater internal control from the audit committee, it is less likely for external auditors to deliver more services and assessment which consequently result in low audit fees. Similarly, Tsui et al. (2001) support the supply side of audit fees, in which a negative link is found between independent directors and audit fees. They argue that firms with independent boards infer strict control and monitoring of the financial reporting process which eventually will diminish audit services and consequently will reduce audit fees. Other studies find that financial reporting process is a key aspect in enhancing firm monitoring, with the help of both internal and external auditing. Carey et al. (2000) and Leung et al. (2004) emphasise that firms with proper internal corporate governance mechanisms have a better assessment of internal and external audit and such firms are likely to pay for these external audit services.

Lifschutz et al. (2010) analyse the relationship between corporate governance mechanisms and external audit fees, in which they report that board independence and number of audit meetings are positively related to audit fees, thereby sustaining the demand side approach of audit fees. Furthermore, their evidence gives an indication that companies denoting a high degree of corporate governance features are more likely to require a high level of audit quality, from external auditors, and hence pay more audit fees.

Similarly but from the UK context, Chan et al. (1993) examine the drivers of audit fees and observe that audit size infers a positive relationship with audit fees. In addition, leverage and liquidity do not have any impact on external audit fees. Clatworthy and Peel (2007) also examine if the public UK companies pay more audit fees if compared to their private counterparties. They report that publicly listed companies pay high audit fees if compared to than unquoted firms.

Joseph et al. (2001) examine the factors affecting audit opinion using firms from eight East Asian countries. They find that profitability has a negative impact on audit opinion, implying that profitable firms are less likely to have an unqualified opinion. Farinha and Viana (2009) investigate the relationship between board characteristics and modified audit opinion for a sample of Portuguese firms for the period from 2002-2005. They find that board size has no significant effect on audit opinion. However, board diligence infers a positive significant link with opinion. This explains that the higher the frequency of board meetings, the higher the degree of financial reporting quality. From audit quality perspectives, Lai (2009) conducts an empirical analysis to examine how audit quality will affect firm-specific factors. Using a logistic approach, with audit quality as dependent variable (that takes 1 if a firm is audited by a big 5 firm and 0 otherwise). He finds that the ratio of property, plant and plant, and firm

size are positively related to audit quality. Joseph et al. (2001) also apply the same approach and argue that firm size and leverage affect audit quality.

From another perspective Niemi and Sundgren (2012), using Finish SMEs, investigate whether modified audit opinions are linked to the increasing use of trade credit if compared to bank debt. The study reports no association between modified audit opinion and credit rationing. From financial reporting perspectives, Luypaert et al. (2016) examine, using Belgian small firms, the financial statement filing lags. They report that only one-third of the financial statements (in the investigated small firms) are filed and it was suggested that the monetary sanctions would be seen as an effective tool to encourage the enterprises to comply with the deadlines.

Based on the above discussion, this study joins the empirical literature on corporate governance and audit fess and aims to provide new evidence of the effect of internal governance tools and firm-specific factors on audit fees and audit quality within the UK context. Furthermore, unlike previous studies with large firms focus, we add novel insights regarding the audit literature as we investigate these issues in non-financial SMEs setting. We first highlight and analyse audit fees, followed by a robustness check of audit quality.

Development of the Hypotheses

In this section, the hypotheses of the internal corporate governance and firm -pecific factors on audit fees will be discussed.

Board independence

One of the key recommendations of the Cadbury Report (1992) is to include independent directors on the board. Independent directors help in monitoring firms to bring effective control and decision making to maximise firm's value. Independent directors on the board

require more quality audit work, from external auditors, to deliver proper financial reporting. Hence, a positive relationship is expected between board independence and audit fees. Lifschutz et al. (2010) argue that more independent members on boards provide strict supervision of financial accounts and in turn, more audit services are required from external auditors, and hence increasing audit fees.

O'Sullivan and Diacon (2002) investigate the link between independent directors and audit fees but find no significant relationship. However, other studies such as Johansen and Pettersson (2013), Lifschutz et al. (2010), Hay *et al*. (2008), Carcello *et al*. (2002) and O'Sullivan (2000) detect a positive and significant association between independent directors and audit fees. Al-Najjar (2015) argues that board independence is an important governance tool in the UK listed SMEs, and thus, we adopt the demand size of audit fees and argue that there is a positive relationship between independent directors and audit fees for the listed SMEs. Accordingly, the following hypothesis is devised:

H1: There is a positive relationship between board independence and audit fees.

Audit committee independence

According to the Cadbury Report (1992), the establishment of an independent audit committee is important to improve the quality of financial statements. The presence of an audit committee within a firm stands as a key aspect of internal corporate governance. In most of the times, the composition of audit committee provides strict control and monitoring to avoid financial fraud or misstatement by engaging external auditors' services, and thus leading to high audit fees. DeAngelo (1981) argues that the work of an auditor is to find any financial misstatements. Therefore, having an audit committee with independent directors will eventually lead to improve external audit quality, and in turn, to minimise the risk of having financial misstatements and fraud, causing audit fees to increase. Empirical evidence

demonstrates that audit committee independence is positively related to audit fees. Beasley et al. (2000) detect that firms with low audit independence are likely to experience higher financial fraud. Similarly, Abbott et al. (2003) argue that audit independence enhances financial reporting. This implies that the higher the percentage of independent members on the audit committee, the higher will be the demand for audit work from external sources, and in turn, the higher will be the audit fees. Hence, we argue that there is a positive relationship between audit independence and audit fees, which supports the demand side approach of audit fees. Al-Najjar (2015) supports the importance of audit committee independence in the listed UK SMEs and includes it in his corporate governance index and therefore, our third hypothesis is:

H2: There is a positive relationship between audit independence and audit fees.

Audit diligence

Audit diligence is measured as the number of audit meetings held in a year. It is argued that frequent audit meetings will result in better auditing processes (Raghunandan et al., 2001). Hence, for an audit committee to be more effective and functioning properly, it has to meet more frequently. Empirical studies posit that audit diligence is positively associated with audit fees. For example, Abbott et al. (2003) demonstrate that audit committees with frequent meetings (meet four times in a year) result in proper financial accounts. In other words, the more audit meetings, the higher the likelihood for firms to demand more audit assurance, for a better financial process, thus leading to high audit fees. However, they report no significant evidence of the relationship between audit meetings and audit fees. On the other hand, Goodwin-Stewart and Kent (2006) detect a positive relationship between audit meetings and audit fees. Research in SMEs context employs audit meetings as a key governance tool (see, for example, Al-Najjar, 2015). Therefore, our fourth hypothesis is:

H3: There is a positive relationship between audit diligence and audit fees.

Board diligence and size

Following the literature, we define board diligence as the number of board meetings being held during a year. Researchers such as Vafeas (1999) argues that effectiveness of board can be indexed by a high number of board meetings, since the higher the frequency of board meetings will indicate more monitoring of the board on the financial reporting process. Therefore, the effective board requires more audit services and hence more audit fees. In this sense, a positive relationship is expected between board diligence and audit fees. Empirical evidence by Carcello et al. (2002) support such argument. We adopt similar view about the importance of board size in the listed SMEs (see, for example, Al-Najjar, 2015) and hence, our fourth hypothesis is:

H4: There is a positive relationship between board diligence and audit fees.

Carcello *et al*. (2002) argue that external auditors are more likely to indicate a lower risk for firms having stronger control environment, such as larger and more qualified boards, leading to a reduction in the external audit procedures, and thus might lead to lower audit fees. On the other hand, Larmous and Vafeas (2010) report a positive association between board size and firm value, thus large boards are more able to provide better discussion and monitoring, which in turn demand better audit services and increase the audit fees. Firms with large boards are more likely to put more pressure on a sound audit reporting system and will require more audit assurance from the part of external auditors. Consequently, high audit fees are imposed. Vafeas and Waeglein (2007) also report that board size is positively correlated to audit fees. Hence, similar to Al-Najjar (2015) who includes board meetings as a key governance tool in the listed SMEs, we posit that

H5: There is a positive relationship between board size and audit fees.

Control Variables

Following the literature, we include the following control variables:

Audit Quality (Big 4): Big 4 audit firms are found to affect audit fees. Prior research has analysed the effect of big audit firms on audit fees (Peel and Clatworthy, 2001; Goodwin-Stewart and Kent, 2006). In the current paper, big 4 is assessed as a binary variable with the value of 1 for firms which are audited by big 4 audit firms and 0 otherwise. Big 4 audit firms offer high-quality assurance services to reduce the risk of financial misstatements and therefore, increasing the level of audit fees. Hence, a positive link is expected between big 4 and audit fees.

Financial Reporting Quality (Opinion): Following previous empirical evidence, a positive relationship is expected between audit opinion and audit fees. Goodwin-Stewart and Kent (2006) support this relationship. Audit Opinion is defined as the quality of financial reporting. Audit firms categorise companies' financial statements as unqualified (no misstatements) and qualified (where audit assessment is required because of the existence of financial misstatements).

Loss: Loss measures audit risk and is seen as an important factor affecting audit fees as more risk will lead to more audit fees (Simunic, 1980). Chan et al. (1993) argue that the higher the level of audit work, the greater the audit risk, and as a result, the higher will be the audit fees. Therefore, a positive relationship is expected between loss and audit fees.

Audit complexity: We follow Chan et al. (1993) in using two measures for complexity: a ratio of account receivables to total assets and inventory to total assets ratio. It is suggested that these costs reflect the internal control quality. Following prior empirical studies, a

positive association is expected between receivables and audit fees (Simon and Francis, 1988; Goodwin-Stewart and Kent, 2006).

Audit risk: Leverage and asset liquidity indicate audit risk, audit risk is found to be an important determinant of audit fees (Chan et al., 1993). Studies such as Peel and Clatworthy (2001) analyse a UK sample of industrial firms and find that leverage is positively related to audit fees. Leverage is measured as the ratio of long-term debt divided by total assets which is similar to previous studies such as Goodwin-Stewart and Kent (2006), and liquidity is measured as current assets to current liability ratio. It is argued that the higher the level of debt and liquid assets, the more the audit risk and thus higher audit fees. Therefore, a positive relationship is expected between leverage (asset liquidity) and audit fees.

International Sales: This firm-specific factor is a proxy for client complexity and is found to be positively related to audit fees. The higher the level of international sales (high degree of client complexity) will lead to higher audit fees. Hence, a positive association between international sales and audit fees is expected. This factor is measured as the ratio of foreign sales to total assets (See, Mitra et al., 2007).

Firm Size: Previous studies (such as Yardley et al., 1992) report that firm size is a key factor affecting the level of audit fees. Large firms are more likely to demand greater audit assurance to avoid a situation of financial misstatements or fraud. Goodwin-Stewart and Kent (2006) using a sample of Australian publicly listed firms find that firm size infers a positive relationship with audit fees. In this study, size is measured as the natural logarithm of turnover which is a proxy for client size (Rainsbury et al., 2009).

Return on Assets: Chan et al. (1993) suggest that there is a relationship between audit fees and profitability. It is argued that a negative relationship is expected between return on assets

and audit fees. Goodwin-Stewart and Kent (2006) support such relationship between profitability and audit fees.

Sample and Methodology

As mentioned before, our sample consists of non-financial UK SMEs. The sample is derived from FAME database using criteria set forward by Department of Trade and Industry. Following Company's Act 2006 and Collis (2008), as from the year 2008, new thresholds of criteria have been set to define a Small and Medium Enterprise. To obtain the sample of small businesses, at least two criteria have to be met. Based on new thresholds (see Collis, 2008), the number of employees has to be within 50 and 250 employees and turnover should be within £6.5m to £25.9m (for year 2008 and 2009). Before the year 2008, the number of employees is within the range of 50 to 250; turnover within £5.6m and £22.8m. The initial sample after satisfying the criteria is 341 listed SMEs, after excluding 34 financial firms, the sample being examined in this study is 307 firms. Financial information and information about audit fees, audit opinion and big 4 are collected from DataStream, and corporate governance data (board size, board meetings, the percentage of independent directors on board, audit committee data) are collected from Thomson One Banker database for the period from 2000 to 2009. This criterion has been adopted so to be consistent with previous studies in the UK SMEs context (see, for example, Belghitar and Khan 2013; Al-Najjar and AL-Najjar, 2017; Al-Najjar, 2015).

Insert Table 1 about here

Table 1 demonstrates the descriptive statistics for the variables being used in the regression models. It is found that logarithm of audit fees has a mean of £4.2, with a maximum of £11.5. Considering the corporate governance variables, on average, independent directors represent 41.6 % of the board of directors and around 93.3 % of the audit committee, this is an

interesting finding as it indicates that SMEs rely on independent directors to act on the audit committee. This shows that our UK sample of firms meets the requirements of Cadbury Report concerning the independence of audit committee. On average, it is observed that the number of audit meetings is about 2 times in a year, explaining a relatively low frequency. However, this observation is justified for our sample as it is composed of listed SMEs. Furthermore, board size has a mean of 6 members with a maximum of 21. The number of board meetings held during a year is on average (around) 8 times, with a minimum of 2 and a maximum of 20. This indicates that more responsibilities and coordination are undertaken with a high level of board diligence. For Big 4 audit firms, we find that around 45 % of the sample is audited by one of the big 4 audit firms. In addition, audit opinion has a mean of 98% which denotes that 98% of the sample has an unqualified opinion showing that they experience no financial fraud.

Insert Table 1 about here

Table 2 shows the correlation matrix of the variables used in the current paper, where it can be deduced that there are no high bi-variate correlations among the variables. It can be seen that board independence and audit independence are not highly correlated. In addition, board meetings are not highly correlated with audit meetings. Finally, firm size is positively correlated with audit fees, indicating large firms will pay more audit fees. Hence, multicollinearity is not an issue in our models

Audit Fees Model

Following Abbott et al. (2003), Carcello et al. (2002), and Tsui et al. (2001), we use the following model. However, this model is not restricted to the abovementioned studies as additional corporate governance and control variables are included to find more evidence on the UK listed SMEs data. The standard errors are classified within firms to capture the group

effects. It is worth noting that the clustered firms are 126 that we can use to estimate the models. The drop of data is due to the missing corporate governance factors.

$$Fees_{it} = \beta_0 + \beta_1 InDir_{it} + \beta_2 AuInd_{it} + \beta_3 AudMeet_{it} + \beta_4 BMeet_{it} + \beta_4 BSize_{it} + \beta_5 Big4_{it} + \beta_6 Opin_{it} + \beta_7 Loss_{it} + \beta_8 Rec_{it} + \beta_9 Inv_{it} + \beta_{10} Cr_{it} + \beta_{11} Lev_{it} + \beta_{12} IntSales_{it} + \beta_{13} Size_{it} + \beta_{14} ROA_{it} + \varepsilon_{it}$$

Where, "Fees" is the dependent variable measured as the natural logarithm of audit fees; InDir is the percentage of independent directors on board of directors; AudInd is the percentage of independent directors on audit committee; AudMeet is the number of audit meetings held in a year; BMeet is the number of meetings in a year; BSize is number of directors on the board; Big4 is a dummy variable taking value of 1 if firm is audited by big 4 audit firms, 0 otherwise; Opin is a dummy variable taking value of 1 if a firm has an unqualified opinion, 0 otherwise; Loss is a dummy variable taking value of 1 for firms having 2 years of consecutive loss, 0 otherwise; Rec is measured as ratio of receivables to total assets; Inv is defined as total inventories to total assets; Cr is the ratio of current assets to current liabilities; Lev is measured as ratio of long-term debt to total assets; IntSales is defined as international sales to total assets; Size is the natural logarithm of turnover; ROA is the return on assets; ε is error term.

It is also worth noting that we include year dummies and industry dummies to our models, to control for secular trends and other non-modelled effects, but for parsimony, we do not report the coefficients in the tables.

Results

The findings of the audit fees model are reported in Table 3 where the dependent variable is the natural logarithm of audit fees. There are four models to show the effects of year and industry dummies. Model 1 is regressed without year and industry effects; Model 2 contains

year dummies with no industry effect; Model 3 encompasses industry dummies with no year effect; Model 4 assesses both year and industry effects.

Insert Table 3 about here

Regarding the main variables of interest which are the internal corporate governance mechanisms, board independence is found to be positively associated with audit fees. This result is in line with our hypothesis and the findings of Johansen and Pettersson (2013), Hay *et al*. (2008), O'Sullivan (2000) and Carcello *et al*. (2002). This indicates that the more independence the board is, the better their governance role and thus enhancing strict control and monitoring of financial conditions. Thus, they demand further audit assurance from external auditors. This will lead to increase audit fees.

As regards audit independence, we report some evidence of a negative relationship with audit fees in Models 3 and 4. This result is not consistent with our hypothesis and the results of Abbot et al. (2003) but can be seen as an evidence for the supply side for audit fees in our sample. In addition, we report a positive and significant relationship between audit meetings and audit fees. This result is consistent with our hypothesis (H3) and other studies such as Goodwin-Stewart and Kent (2006) and Lifschutz et al. (2010). The positive influence of audit diligence is explained in a way that the more audit meeting frequency, the better monitoring and coordination to avoid any risk of financial fraud which requires more audit services from external auditors, and therefore high audit fees are prevalent. Moreover, we find supportive evidence that board size is positively related to audit fees. This result is in line with H5 and the argument of Vafeas and Waeglein (2007) that firms with large boards demand comprehensive audit reporting system and require more audit assurance from external auditors. Finally, we couldn't find support for the relationship between board diligence and audit fees.

For the audit variables (audit opinion and big 4), no evidence is found to impact the level of audit fees. In terms of control variables, loss, leverage and size are found to have a significant effect on audit fees with the expected signs.

Accordingly, we argue that our sample of SMEs share the same determinants of audit fees as those for large listed firms. The direction of the relationship might differ yet the governance factors in our SMEs are of similar importance as in large firms. Thus, we argue that corporate governance mechanisms in SMEs are key determinants of audit services (audit fees).

It is worth noting that we check for any endogeneity issue between corporate governance and audit fees, we use IV modelling with lagged of the corporate governance factors as instruments and report the results in Table 4. The findings show a positive relationship between board independence and audit fees as well as there is some evidence of a negative association between audit independence and audit fees. Also, a positive relationship is reported between audit meetings and audit fees as well as a positive association between board size and audit fees. Finally, our results show no support for a relationship between board meetings and audit fees. All of these results are consistent with our previous findings, reported in Table 3.

Insert Table 4 about here

Determinants of Audit quality

For a further check of our results, we introduce another audit quality variable, which is related to the selection of the big 4 audit firms. We aim to investigate if our main corporate governance factors (board independence, audit independence, audit diligence, board diligence, and board size) affect the decision to go for one of the big four audit firms. We posit that better internal corporate governance will demand more audit quality. Hence, we

argue that firms with large boards, and more independent directors, as well as have audit committee independence, and more frequent audit and board meetings are more likely to employ one of the big four audit firms. The positive association between audit quality and corporate governance has been supported by different studies (see, for example, Beasley and Petroni, 2001) and therefore, our hypothesis is:

H6: There is a positive relationship between corporate governance factors and audit quality.

To test for H6 we advance the following model:

$$Big4_{it} = \beta_0 + \beta_1 InDir_{it} + \beta_2 AudInd_{it} + \beta_3\ AudMeet_{it} + \beta_4\ BoardMeet_{it} + \beta_5\ BSizei_t + \beta_5\ Size_{it} + \beta_6\ Lev_{it} + \varepsilon_{it}$$

Where the dependent variable is a dummy variable taking the value of 1 if a firm is audited by big 4 audit firms and 0 otherwise. The independent variables are: InDir is the percentage of independent directors on board of directors; AudInd is the percentage of independent directors on audit committee; AudMeet is number of audit meetings in a year; BMeet is the number of board meetings in a year; BSize is number of directors among the board; we follow the literature (see Joseph et al., 2001; Lai, 2009) and control for leverage and size: Lev is measured as the ratio of long-term debt divided by total assets; Size is defined as the natural logarithm of turnover; ε is error term.

The results of audit quality are reported in Table 5. Three models are regressed each differing in year and industry effects. Considering the variables of main interest, it can be deduced that there is a positive evidence of board independence on the selection of the big four audit firms. This shows that the more independent directors on the board, the more likely will a firm be audited by a big 4 audit firm, as independent directors look over the best quality audit process for a firm. This result is consistent with our hypothesis (H6) and the findings of Beasley and

Petroni (2001). Furthermore, there is a positive association between audit meetings and the selection of Big 4 audit firms in our models. This explains that the higher the frequency of audit meetings, the more audit assurance is demanded, and in turn, the best audit firms will be selected by the company. This result is in line with our Hypothesis (H6) and the results of Abbott and Parker (2000) who report that firms with audit committees that met at least twice a year were more likely to opt for highly specialised external auditors. Audit independence and board diligence are found to have no significant impact on audit quality. Hence, there is some evidence that good governance control will result in more audit quality, which is consistent with H6. Regarding the control variables, leverage is found to be positively related to the selection of Big 4 audit firms, explaining that firms with high debt structure are more likely to be audited by one of the big 4 because of their financing structure, firm size is found to be negatively related to audit quality. Accordingly, we find supporting evidence that better governance tools lead to better audit quality, in terms of selecting one of the big 4 audit firms.

Insert Table 5 about here

We also the run the models with the lagged corporate governance to check for any endogeneity in the corporate governance factors, the results are similar to those reported in Table 5. It is worth that we investigated the causality and endogeneity between audit fees and Big 4 selection the results show no significant endogeneity issue between the two variables.

Overall conclusion

This paper is the first major study to investigate if corporate governance tools affect the audit features within SMEs context. Our sample includes 307 SMEs for the period from 2000 to 2009. We employ different cross sectional-time series analysis, including time seriers-cross sectional OLS, IV modelling and logit. In particular, this study aims to investigate if internal governance mechanisms, such as board independence, audit independence, audit diligence as

well as board diligence and size affect different audit features, (audit fees, audit and big 4 audit firms). Our results show that corporate governance mechanisms are important in determining audit fees. We detect a positive impact of board independence, audit meeting and board size on audit fees. Also, we report some evidence of a negative relationship between audit independence and audit fees, which supports the supply side of audit fees. In addition, we report that governance factors affect audit quality. We detect that independent directors and audit diligence positively affect the decision to select big 4 audit firms.

Overall, our results provide new evidence that corporate governance mechanisms of listed SMEs affect audit features. Hence, corporate governance factors that affect audit fees in large firms are similar to those affect listed SMEs. However, their impact might be different within the SMEs context. In addition, firm specific-factors are found to affect the audit features in a similar fashion as in large firms. Thus, SMEs are encouraged to follow teamwork management not individual management approach to improve the audit performance and financial reporting.

Our findings have different implications for policymakers and managers. First, policymakers need to provide rules, regulations and legislations for SMEs to enhance the role of good governance in such enterprises. In addition, SMEs managers are encouraged to adopt proper governance tools as such tools are proved to improve audit services and audit quality. For example, employing independent directors and encourage more meetings for audit committees will help in improving audit quality. It is indeed important for SMEs to have large boards, to ensure more discussions about strategic decisions, and hence large boards employing more independent directors are seen to be active in firm's monitoring.

Finally, similar to all archival studies with the same notion, this study has a number of limitations. First, our sample is restricted to listed SMEs and hence our results should be

interpreted within this focus and other studies are invited to include a larger set of SMEs so the results can be generalised. However, it is important to note that the availability of the governance factors for such dataset might be limited and this is the reason behind our study to adopt this sample. In addition, there are different definitions used for SMEs, while we have used similar definitions to related studies in the UK, yet other definitions (European Commission Recommendation 2003/361/CE) can be used, especially if the sample is large since adopting European commission definition might reduce the number of enterprises selected in the sample. Finally, other governance tools could be investigated, this might include, but not limited to CEO characteristics and ownership structure.

References

Abbott, L.J., Parker, S., Peters, G.F., and Raghunandan, K. (2003), "The association between audit committee characteristics and audit fees". *Auditing: A Journal of Practice & Theory* Vol 22,No2, pp.17-32.

Abbott, L.J., Parker, S., Peters (2000), "Auditor selection and audit committee characteristics. *Auditing : A Journal of Practice & Theory* " Vol 19(Fall), pp. 47-66.

Afrifa G., Tauringana V. (2015), "Corporate governance and performance of UK listed small and medium enterprises", *Corporate Governance*, Vol 15, No5, pp.719-733.

Al-Najjar, B. and Al-Najjar, D. (2017)," The impact of external financing on firm value and a corporate governance index: SME evidence", *Journal of Small Business and Enterprise Development*, Vol 24, No 2, pp. 411-423

Al-Najjar, B (2015), "The Effect of Governance Mechanisms on Small and Medium-Sized Enterprise Cash Holdings: Evidence from the United Kingdom, *Journal of Small Business Management*, Vol 53 , No2, pp. 303-320

Asthana, S. C., Raman, K. K., & Xu, H. (2015), "US-Listed Foreign Companies' Choice of a US-Based versus Home Country-Based Big N Principal Auditor and the Effect on Audit Fees and Earnings Quality", Accounting Horizons, Vol 29 , No3, pp. 631–666.

Belghitar Y & Khan J (2013), "Governance mechanisms, investment opportunity set and SMEs cash holdings", Small Business Economics, Vol 40, No1, pp. 59-72.

Beasley, M.S., Carcello, J.V., Hermanson, D.R., and Lapides, P.D. (2000), "Fraudulent financial reporting: Consideration of industry traits and corporate governance mechanisms", *Accounting Horizons*, Vol 14, pp. 14-21.

Beasley, M., and K. Petroni. (2001), "Board independence and audit firm type", *Auditing: A Journal of Practice and Theory* , (March), pp.. 97-114

BIS: Department for Business Enterprise and Regulatory Reform (2009) http://www.berr.gov.uk, accessed in 10th September 2009

Cadbury Report (1992), "Committee on the financial aspects of corporate governance", (chaired by Sir Adrian Cadbury), London: Gee Publishing.

Carcello, J., Hermanson, D.R., Neal, T., and Riley, R. (2002), "Board characteristics and audit fees", *Contemporary Accounting Research*, Vol 19, pp. 365-385.

Carey, P., Craswell, A., and Simnett, R. (2000), "The association between the external audit fee and external auditors reliance on the work of internal audit", working paper (Monash University, Victoria).

Chan, P., Ezzamel, M. and Gwilliam, D. (1993), "Determinants of audit fees for quoted UK companies", *Journal of Business Finance and Accounting*, Vol 20, No 6, pp.765-786.

Clatworthy, M.A. and Peel, M.J. (2007), "The effect of Corporate Status on External Audit Fees: Evidence from the UK", *Journal of Business Finance & Accounting*, Vol 34, No1, pp. 169-201.

Collier, P. and Gregory, A. (1996), "Audit committee effectiveness and the audit fee", *The European Accounting Review* , Vol 5, No 2, pp. 177-198.

Collis, J. (2008), "Director's views on accounting and auditing requirements for SMEs", Department for Business Enterprise and Regulatory Reform.

DeAngelo, L. (1981), "Auditor size and audit quality", *Journal of Accounting and Economics*, 183-199.

Drucker, P. (1992),The practice of management, Butterworth-Heinemann, London.

Eshleman, J. D., and Guo, P. (2014), "Do Big 4 auditors provide higher audit quality after controlling for the endogenous choice of auditor?" *Auditing: A Journal of Practice & Theory*, Vol 33 , No 4, 197–219.

Fama, E., and Jensen, M. (1983), "Agency problems and residual claims", *Journal of Law and Economics* , Vol 26, pp. 327-349.

Farinha, J. and Viana, L.F. (2009), "Board structure and modified audit opinions: Evidence from the Portuguese Stock Exchange", *International Journal of Auditing*, Vol 13, pp. 237-258.

Francis, J. R. (2004), "What do we know about audit quality?" *British Accounting Review*, Vol 36,pp. 345–368.

Goddard, A. R., and Masters, C. (2000), "Audit committees, Cadbury Code and audit fees: an empirical analysis of UK companie", *Managerial Auditing Journal*, Vol 15, pp. 358–371.

Goodwin-Stewart, J., and P. Kent. (2006), "Relation between external audit fees, audit committee characteristics and internal audit", *Accounting and Finance*, Vol 46, pp. 387–404.

Habbash, M., & Alghamdi, S. (2017), "Audit quality and earnings management in less developed economies: the case of Saudi Arabia", *Journal of Management & Governance*, Vol 21, No 2, pp. 351–373

Hay, D., Knechel, W. R., & Ling, H. (2008), "Evidence on the impact of internal control and corporate governance on audit fees", *International Journal of Auditing*, Vol12 No1, 9–24.

Johansen, T. R., & Pettersson, K. (2013), "The impact of board interlocks on auditor choice and audit fees", *Corporate Governance: An International Review*, Vol 21, No 3, pp. 287–310.

Joseph, P., Fan, H., and Wong, T.J. (2001), "Do external auditors perform a corporate governance role in emerging markets?" Evidence from East Asia", William Davidson Working Paper, 400: 1-48.

Khalil, M., & Ozkan, A. (2016), "Board Independence, Audit Quality and Earnings Management: Evidence from Egypt", *Journal of Emerging Market Finance*, Vol 15 No1, pp. 84-118.

Knechel, W. R. (2016)," Audit quality and regulation", *International Journal of Auditing*, Vol 20, No3, pp. 215–223.

Lai, KW. (2009), "Does audit quality matter more for firms with high investment opportunities?" *Journal of Accounting and Public Policy*, Vol 28, pp. 33-50.

Larmous, S., and Vafeas, N. (2010), "The relation between board size and firm performance in firms with a history of poor operating performanc", *Journal of Management and Governance*, Vol14, pp. 61-85.

Lee, H., and Mande V. (2005), "The relationship of audit committee characteristics with endogenously determined audit and non-audit fees", *Quarterly Journal of Business & Economics*, Vol 44, pp. 93–112.

Leung, P., Cooper, B., and Robertson, P. (2004), "The role of international audit in corporate governance and management", (RMIT Publishing, Melbourne, Vic.).

Lifschutz, S., Jacobi, A., and Feldstein, S. (2010) "Corporate governance characteristics and external audit fees: A study of large public companies in Israel". *International Journal of Business and Management*, Vol 5, No 3, pp. 109-116.

Luypaert Mathieu, Van Caneghem Tom, Uytbergen Steve Van (2016), "Financial statement filing lags: An empirical analysis among small firms", *International Small Business Journal: Researching Entrepreneurship*, Vol 34, No 4, pp. 506-531

Low, L.C., Tan, P. and Koh, H.C.(1990), “The determination of audit fees: an analysis in the Singapore context”, *Journal of Business Finance & Accounting*, Vol 17, No 2,pp. 285-295.

Luypaert, M., Van Canaghem, T. and Van Uytbergen, S. (2013), “Delay in filing the financial statements: An empirical analysis among small firms”. *International Small Business Journal: Researching Entrepreneurship, Vol 34, pp. 506-531*

McMullen, D.A. (1996) ,”Audit committee performance: an investigation of the consequences associated with audit committees”, *Auditing: A Journal of Practice and Theory* Vol 15, pp. 87–103.

McMullen, D.A. and Raghunandan, K. (1996), “Enhancing audit committee effectiveness”, *Journal of Accountancy*: pp. 79–81.

Mitra, S, Hossain, M., and Donald R.D. (2007), “The empirical relationship between ownership characteristics and audit fees*”, Review of Quantitative Finance and Accounting*, Vol 28, pp. 257-285.

Niemi L, Sundgren S (2012), “Are modified audit opinions related to the availability of credit? Evidence from Finnish SMEs”, *European Accounting Revie,* Vol 21, No 4, pp. 767–796.

O'Sullivan, N. and Diacon, S. (1994), “Audit fee determination and governance structure: Some empirical evidence from UK insurance companies”. *Geneva Papers on Risk and Insurance,* Vol 19, No 70, pp. 70-84.

O'sullivan, N., & Diacon, S. R. (2002), “The impact of ownership, governance and non-audit services on audit fees: Evidence from the insurance industry”, *International Journal of Auditing,* Vol 6, No 1, pp. 93–107.

Peasnell, K.V., Pope, P.F. and Young, S. (2005), “Board monitoring and earnings management: Do outside directors influence abnormal accruals?” *Journal of Business Finance & Accounting* , Vol 32, No (7-8, pp. 1311-1346.

Peel, M.J. and Clatworthy, M.A. (2001), “The relationship between governance structure and audit fees pre-Cadbury: some empirical evidence”, *Corporate Governance: An International Review,* Vol 9, No 4, pp. 286-297.

Raghunandan, K., Read, W.J., and Rama, D.V. (2001)Audit committee composition, .gray directors, and interaction with internal auditing. *Accounting Horizons*: 105-118.

Rainsbury, E.A., Bradbury, M., and Cahan, S.F. (2009), “The impact of audit committee quality on financial reporting quality and audit fees”, *Journal of Contemporary Accounting & Economics,* Vol 5,pp. 20-33.

Simon, D. T., and Francis, J.R. (1988), “The effects of auditor changes on audit fees: Tests of price cutting and price recovery”, *The Accounting Review*, Vol 63, pp. 255-269.

Simunic, D.A. (1980), "The pricing of audit services: Theory and evidence". *Journal of Accounting Research*, Vol 18, No 1, pp. 161-190.

Simunic, D.A., and Stein, M.T. (1996), "The impact of litigation risk on audit pricing: A review of the economics and the evidence", *Auditing: A Journal of Practice & Theory*, Vol 15, pp. 119-134.

Smith Committee (2003), "Audit Committees – Combined Code Guidance", Financial Reporting Council.

Sparrow, O. (1993), "Management options: Identifying choices for medium-sized enterprises", Shell UK Ltd, London.

Taylor, M.E. and Baker, R.L. (1981), "An analysis of the external audit fee". *Accounting and Business Research*, pp. 55-60.

Tsui, J., Jaggi, B., and Gul, F. (2001), "CEO domination, discretionary accruals and audit fees', *Journal of Accounting, Auditing and Finance*, pp. 189-207.

Vafeas, N. (1999), "Board meeting frequency and firm performance", *Journal of Financial Economics*, Vol 53, pp. 113-142.

Vafeas, N. and Waeglein, J.F. (2007), "The association between audit committees, compensation incentives, and corporate audit fees", *Review of Quantitative Finance and Accounting*, Vol 28, pp. 241-255.

Xie, B., Davidson III, W.N. and Dadalt, P.J. (2003), "Earnings management and corporate governance: the role of the board and the audit committee", *Journal of Corporate Finance*, Vol 9, pp. 296-316.

Yardley, J.A., Kauffman, N.L., Cairney, T.D. and Albrecht, W.D. (1992), "Supplier behaviour in the US audit market", *Journal of Accounting Literature*, Vol 24, No 2, pp. 405-411.

Table 1 Descriptive Statistics

Variable	Mean	Std.Dev	Min	Max
Audit Fees	4.204	0.988	0	11.493
InDir	0.416	0.201	0	1
AudInd	0.933	0.202	0	1
AudMeet	2.366	0.850	1	6
BSize	6.087	2.494	1	21
BoardMeet	8.781	2.953	2	20
Big4	0.449	0.497	0	1
Opinion	0.976	0.152	0	1
Loss	0.299	0.458	0	1
Receivables	0.342	5.073	0	248.158
Inventories	0.082	0.131	0	0.923
Liquidity	2.550	3.980	0.004	58.882
Leverage	0.077	0.143	0	0.961
IntSales	0.263	0.430	0	5.053
Size	9.302	1.335	0	14.173
ROA	-0.062	0.36	-0.99	0.99

Audit fees is defined as the natural logarithm of external audit fees; InDir as ratio of independent directors; AudInd as ratio of independent directors on audit committees; BSize as number of board directors; BoardMeet is the number of board meetings; Big4 is a dummy variable taking the value of 1 if firms are audited by big 4 audit firms and 0 otherwise; Opinion is coded as 1 for firms with unqualified opinion and 0 otherwise; loss takes the value of 1 for firms having a loss for 2 consecutive years and 0 otherwise; receivables is measured as the ratio of receivables to total assets; inventories as the ratio of inventories to total assets; liquidity as the ratio of current assets to current liabilities; leverage as the ratio of long-term debt to total assets; IntSales as the ratio of international sales to total assets; size as the natural logarithm of turnover; ROA is the return on assets.

Table 2 Correlation Matrix

Variables	Log Audit Fees	InDir	AudInd	AudMeet	BSize	BoardMeet	Big5	Opinion	Loss	Receivables	Inventories	Liquidity	Leverage	IntSales	Size	ROA
Log Audit Fees	1.000															
InDir	0.303	1.000														
AudInd	0.081	0.255	1.000													
AudMeet	0.423	0.205	0.195	1.000												
BSize	0.188	-0.228	0.184	0.231	1.000											
BoardMeet	-0.056	0.045	0.257	0.035	0.006	1.000										
Big4	0.052	0.109	0.109	0.155	0.023	0.093	1.000									
Opinion	-0.023	-0.006	-0.038	0.016	0.021	-0.057	0.063	1.000								
Loss	0.052	0.035	0.082	0.059	0.082	0.005	-0.003	-0.044	1.000							
Receivables	-0.202	-0.058	-0.021	-0.227	-0.049	0.080	-0.082	0.008	-0.078	1.000						
Inventories	-0.064	0.059	-0.102	-0.019	-0.222	-0.091	-0.005	-0.003	-0.057	0.029	1.000					
Liquidity	-0.042	-0.001	-0.015	0.047	0.033	-0.043	-0.018	0.016	0.118	-0.042	0.122	1.000				
Leverage	0.230	0.069	0.034	0.054	0.061	-0.094	0.196	0.036	-0.035	-0.186	-0.011	-0.292	1.000			
IntSales	0.057	0.043	-0.082	0.057	-0.036	-0.055	-0.045	-0.155	0.012	0.141	0.284	0.085	-0.142	1.000		
Size	0.552	0.166	0.059	0.405	0.133	-0.019	0.014	-0.067	-0.227	-0.164	0.058	-0.261	0.217	0.240	1.000	
ROA	-0.032	-0.019	-0.002	0.024	-0.026	0.010	0.012	-0.017	-0.649	0.067	0.095	-0.025	-0.008	0.087	0.224	1.000

Note: Variables as described in Table 1

Table 3 Determinants of Audit Fees Regression results

Dependent Variable: Log of Audit Fees	Model (1)	Model (2)	Model (3)	Model (4)
Independent Variables:				
InDir	1.273*** (0.000)	1.271*** (0.000)	1.185*** (0.000)	1.187*** (0.000)
AudInd	-0.361 (0.156)	-0.367 (0.151)	-0.474** (0.042)	-0.474** (0.042)
AudMeet	0.136** (0.015)	0.119** (0.019)	0.134** (0.015)	0.121** (0.020)
BoardMeet	-0.011 (0.527)	-0.011 (0.518)	-0.009 (0.592)	-0.001 (0.566)
BSize	0.038** (0.020)	0.041** (0.009)	0.041** (0.017)	0.045** (0.006)
Big4	-0.033 (0.739)	-0.038 (0.700)	-0.006 (0.954)	-0.011 (0.912)
Opinion	-0.049 (0.804)	-0.064 (0.751)	-0.011 (0.952)	-0.031 (0.862)
Loss	0.165 (0.183)	0.182 (0.149)	0.176 (0.158)	0.201* (0.107)
Receivables	-0.074 (0.562)	-0.070 (0.587)	0.006 (0.951)	0.009 (0.930)
Inventories	-0.694 (0.339)	-0.625 (0.385)	-0.780 (0.280)	-0.661 (0.359)
Liquidity	0.048** (0.013)	0.045** (0.015)	0.045** (0.025)	0.043** (0.030)
Leverage	1.080** (0.046)	1.094** (0.049)	0.898* (0.106)	0.919* (0.106)
IntSales	-0.122 (0.447)	-0.127 (0.427)	-0.073 (0.652)	-0.076 (0.634)
Size	0.398 *** (0.000)	0.413*** (0.000)	0.403*** (0.000)	0.413*** (0.000)
ROA	-0.003 (0.339)	-0.003 (0.316)	-0.002 (0.520)	-0.002 (0.489)
Constant	-0.105 (0.881)	-0.227 (0.744)	-0.234 (0.724)	-0.326 (0.620)
Year Dummies	No	Yes	No	Yes

Industry Dummies	No	No	Yes	Yes
No of clustered firms	307	307	307	307
R^2	0.4574	0.4725	0.4838	0.4979
F-Test	12.81*** (0.000)		14.53*** (0.000)	

Note: Variables are defined in Table1. ***, **, * significant at 1%, 5%, 10% levels respectively. It is worth noting that from the 307 SMEs only 126 provide the required information to run the models.

Table 4 IV model-Audit fees

Dependent Variable: Log of Audit Fees	Model (1)	Model (2)	Model (3)	Model (4)
Independent Variables:				
InDir	1.347***	1.346***	1.241***	1.236***
	(0.000)	(0.000)	(0.000)	(0.000)
AudInd	-0.370	-0.373	-0.510**	-0.507**
	(0.125)	(0.122)	(0.034)	(0.033)
AudMeet	0.140**	0.134**	0.138**	0.135**
	(0.012)	(0.019)	(0.020)	(0.025)
BoardMeet	-0.011	-0.011	-0.010	-0.010
	(0.418)	(0.426)	(0.470)	(0.472)
BSize	0.044***	0.046***	0.048***	0.050***
	(0.005)	(0.004)	(0.003)	(0.002)
Big4	-0.061	-0.064	-0.013	-0.016
	(0.380)	(0.362)	(0.851)	(0.819)
Opinion	-0.181	-0.185	-0.127	-0.136
	(0.439)	(0.435)	(0.578)	(0.558)
Loss	0.142	0.156	0.147	0.162
	(0.191)	(0.153)	(0.176)	(0.140)
Receivables	-0.029	-0.029	0.039	0.041
	(0.828)	(0.829)	(0.770)	(0.759)
Inventories	-0.741*	-0.709*	-0.862*	-0.807*
	(0.068)	(0.081)	(0.055)	(0.074)
Liquidity	0.042**	0.040*	0.037*	0.035*
	(0.043)	(0.055)	(0.080)	(0.094)
Leverage	1.095***	1.080**	0.888**	0.882**
	(0.010)	(0.011)	(0.033)	(0.034)
IntSales	-0.144	-0.147	-0.096	-0.099
	(0.209)	(0.204)	(0.396)	(0.387)
Size	0.366***	0.371***	0.371***	0.374***
	(0.000)	(0.000)	(0.000)	(0.000)
ROA	-0.002	-0.002	-0.001	-0.001
	(0.381)	(0.406)	(0.904)	(0.938)
Constant	0.290	0.239	0.174	0.140
	(0.578)	(0.648)	(0.734)	(0.786)
Year dummies	No	Yes	No	Yes
Industry dunnies	No	No	Yes	Yes
R^2	0.4572	0.4599	0.4864	0.4885
Wald-X	272.61***	275.56***	307.74***	310.18***
	(0.000)	(0.000)	(0.000)	(0.000)

Note: Variables are defined in Table1. ***, **, * significant at 1%, 5%, 10% levels respectively. It is worth noting that from the 307 SMEs only 126 provide the required information to run the models.

Table 5 Logistic Findings of Determinants of Big4

Dependent Variable: Big 5	Model (1)	Model (2)	Model (3)
Independent Variables:			
InDir	1.021 (0.144)	0.997 (0.151)	0.800 (0.234)
AudInd	1.091 (0.171)	1.113 (0.161)	0.892 (0.253)
AudMeet	0.585*** (0.000)	0.587*** (0.000)	0.502** (0.000)
BoardMeet	0.049 (0.192)	0.046 (0.219)	0.057 (0.109)
BSize	-0.014 (0.748)	-0.017 (0.697)	-0.008 (0.840)
Size	-0.356** (0.001)	-0.357** (0.001)	-0.294** (0.002)
Leverage	3.597** (0.002)	3.607** (0.001)	3.520** (0.001)
Constant	0.227 (0.854)	0.276 (0.815)	-0.234 (0.835)
Year Dummies	Yes	No	No
Industry Dummies	Yes	Yes	No
No of clustered firms	307	307	307
Pseudo R^2	0.094	0.094	0.0617
F-Test	65.94*** (0.000)	66.11*** (0.000)	43.48*** (0.000)

Note: variables are defined in Table 1. ***, **, * significant at 1%, 5%, 10% levels respectively.