DETERMINANTS OF AUDIT FEES IN QUOTED FINANCIAL AND NON-FINANCIAL FIRMS

Wasiu Ajani Musa *, Ramat Titilayo Salman **, Ibrahim Olayiwola Amoo **

* Corresponding author, Department of Accounting, University of Ilorin, Ilorin, Nigeria
Contact details: Department of Accounting, University of Ilorin, P.M.B. 1515 Ilorin, Kwara State, Nigeria
** Department of Accounting, University of Ilorin, Ilorin, Nigeria

Abstract

Regulators have ensured the compulsory disclosure of audit fees in the financial statement to overcome abnormal fees and instill credibility in the financial report since audit pricing is contingent upon audit quality. However, discrepancies between audit fee dimensions are evidenced in the abnormal audit fees, resulting in accounting scandals. Hence, this study assessed the determinants of audit fees in quoted financial and non-financial firms by building a model underpinned by agency theory (Mitnick, 2006) and economic theory of product differentiation (Beath & Katoulacas, 1991). Secondary data were utilized from companies’ annual reports between 2009 and 2018 using the purposive sampling technique. Furthermore, Breusch-Pagan Lagrangian multiplier (LM) test and the Hausman test indicated the consistency of the models. The static panel regression estimations showed that auditee size, risk, auditor size, reputation, engagement lag, and International Financial Reporting Standards (IFRS) implementation significantly affect audit fees in both sectors. This study concluded that the three dimensions largely determine audit fees. This study instructively proposed that assurance clients should devise an outline of guidelines and practices to guide activities in the sectors by monitoring the variables that impact audit fees.

Keywords: Determinants, Audit Fee, Audit Fee Dimensions, Sectorial Analysis, Auditee’s Characteristics, Auditor’s Characteristics, Engagement Factors, Quoted, Financial, Non-Financial, Firms


Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

Listed companies must have their financial statements audited by external auditors since audit plays a vital role in enhancing financial statement credibility. The readiness of audit firms to qualify their client’s report, if necessary, depends on the assurance client’s economic significance. Since the audit market is competitive and audit quality is challenging to perceive, they might be offered enticements to give in to client pressure and not report a discovered breach compromising their independence (Francis, 2004; Craswell & Francis, 1999). Accounting scandals in the twenty-first century perpetrated by Enron, Worldcom, and Parmalat led to the collapse of public belief in auditors due to abnormal audit fees charged (Davidson, 2015). In developed countries such as Italy and France, regulatory authorities have condemned firms for fixing ambiguous audit fees and have ensured compulsory disclosure of audit fees (Gonthier-Besacier & Schatt, 2007; Cameran, 2005). In a developing economy like Nigeria, corporate failure witnessed in the early 1990s called...
enterprises and auditors to question. Cases of accounting inappropriateness of Wema Bank, Nampak, Finbank, and Spring Bank blew the abnormal high fee collected by auditors to cover discretionary practices and retain firms by cutting down prices (Soyemi & Olowookere, 2013; Okike, 2004).

The audit fee is the amount collected for audit work. The engagement contract between the auditor and client is based on audit timing, required service, and needed staff for audit work. These form the basis for the determination of audit fees before the starting of audit work. Practically, this fee can be a contingent fee, benefit in kind, fixed price, and hourly billing rate (Diamant, 2000). The nature of contingent fees and benefits in kind will negatively impact auditors’ independence, while disclosed fixed price and hourly rate have no negative impact on auditors’ opinion (Gonthier-Besacier & Schatt, 2007).

In works of literature, audit fee is determined by the auditee’s characteristics (like size, profitability, complexity, and risk) or by auditor’s attributes (size, reputation, experience, and multinationalism (Musa, Salman, Amoo, & Subair, 2016)). In addition, though, attributes (such as financial year-end and report lag) relating to audit engagement are also important. In the opinion of Taylor and Simon (1999), auditee’s and auditor’s attributes are the micro-economic variables that affect the audit fees paid by firms. Although litigation propensity, disclosure requirement, and regulation are variables that capture the effect of economic and political factors that differs among the environment in which the audit is conducted.

Tones of publications have been presented out outside Nigeria on the determinants of audit fee utilizing several procedures, approaches, and methods of investigation (Cameran, 2005; Gonthier-Besacier & Schatt, 2007; Yuan, Lópe, & Forgone, 2012; Vu, 2012; Davidson, 2015; Xiwong, 2016). Though most of these studies have focused on the developed economy, limited studies recently carried out on emerging economies (Musa et al., 2020; Kimeli, 2013, 2016) either concentrate on individual countries or a dimension of audit fee determinants. For example, Musa et al.’s (2020) study concentrated on the specific factors of some selected consumer good firms. Soyemi and Olowookere (2013) centered theirs on banks in pre-International Financial Reporting Standards (IFRS) adoption period, but after banking consolidation. In contrast, De George, Ferguson, and Spear (2012) revealed in their research the effectiveness of integrating IFRS on the audit pricing of identified Australian companies. Also, this research work made a sectorial analysis of the financial and non-financial sector due to their heterogeneous nature in line with Karim and Moizer’s (1996) argument that audit fee differs between the two sectors due to regulations, different challenges faced, and differences in their asset structures. Hence, it is essential to examine whether determinants of audit fees differ between the financial and non-financial sectors in Nigeria while accounting for the influence of IFRS.

The agency theory (Mitnick, 2006) and economic theory of product differentiation (Booth & Katsoulacos, 1991) serve as the theoretical framework underpinning the model of this study. This study fills the literature gap by comparing financial and non-financial sectors while also combining the three dimensions of audit fees determinants. This choice of the financial sector is due to the lubricating function performed by the sector to the economy. Also, the non-financial sector was chosen due to the sector's more significant daily sales and returns which contribute to the engagement of wealth, increased output per head, reduction of poverty, and progressive increase in the national gross domestic product (GDP).

Questions and inquiries on the determining factors impacting audit pricing in quoted financial and non-financial firms were raised by this study. Based on the preceding, this study investigates the determinants of audit fees in the quoted financial and non-financial sectors. Specifically, the study checks the influence of the auditee’s characteristics, auditor’s attributes, and engagement factors on audit fees of quoted financial and non-financial firms. It utilized the static panel data analysis; the finding evidenced that larger parts of auditor’s characteristics, auditee’s attributes, and engagement factors influence audit pricing in the quoted financial and non-financial firms. Therefore, this study is significant to audit fees since it reveals the similarities and differences regarding determinants of audit fees in both sectors.

The structure of this paper is as follows. Section 1 shows a brief introduction, statement of the problem, research questions, research objectives, justification of this study, and contributions. Section 2 dwells on the conceptual framework, theoretical framework, and empirical evidence to explain the research gap. Section 3 hinges on the research methodology of this paper. Section 4 contains data presentation, data analyses, and data interpretations. Section 5 provides the discussion of findings. The conclusion and recommendations of this study are contained in Section 6.

2. LITERATURE REVIEW

2.1. Conceptual framework

2.1.1. Audit fee

The problem of information asymmetry requires an external audit as a control means (Ittneron, 2010). The audit fee is collected for audit work, usually by resources, opportunity cost, and audit quality (Apadore & Letchumanan, 2016; Simunic, 1980). Al-Harshani (2008) and Griffin and Lont (2007) opined that an audit fee model to determine audit fee level is needed in the period of IFRS due to its volatility.

2.1.2. Assurance client’s factors

Javed and Khan (2011) viewed client size as a formalized property and predictable variable in an account of quantities of resources and audit of firm activities. Client size is a significant determinant because more time is used on transaction audits by auditors of a big firm (Naser & Nuseibeh, 2007). Davidson (2015) suggested total assets as the most appropriate proxy for firm size due to most audit firms’ balance sheet approach to auditing.
VuHaq and Leghari (2015) describe risk as to the probability that an auditor would be accountable for failure, misstatements, loss, and damage. Auditors will charge a higher risk premium on businesses whose continuity is not assured due to horrible conditions (Vu, 2012). The best measure of auditee risk is the debt ratio because it shows how well a company can repay its long-term debt (Kimeli, 2016; Carcello, Hermanson, & McGrath, 1992).

Complexity means a high level of non-linear relationship in a system that contains multiple entities (Apadore & Letchumanan, 2016). Some companies embark on many transactions, leading to high-audit fees (Kimeli, 2016). Chan, Ezzamel, and Gwilliam (1993) argued that group structure necessitates consideration of the accuracy of transactions to align with the group accounting policies. Some branches and subsidiaries are used in this study to proxied complexity. Performance of management in utilizing allocated resources is appraised through corporate profit (Karim & Moizer, 1996). A positive or negative association between audit fees and auditee profitability can exist (Tulisan, 2014; Joshi & Al-Bastaki, 2000). Return on assets (ROA) is used in this study because it reflects the performance of a company concerning its total worth.

2.1.3 Auditor's characteristics

Auditor size, reputation, expertise, and Big 4 are among the audit firm’s attributes affecting audit pricing. Craswell and Francis (1999) argued that a greater audit fee is needed to compensate the big auditors for service differentiation. This study used the number of partners to capture the auditor size (Choi, Kim, Kim, & Zang, 2010).

Auditor experiences and industry expertise make them better at their work (Li & Zhu, 2011; Ferguson, Francis, & Stokes, 2003). The number of years in practice is used as a proxy for experience, while dummy variables for disciplinary cases were used for the auditor reputation. Well-established multinational audit firms are perceived to be offering quality audits, and the auditee pays a high premium to enjoy the services of the Big 4 firms (Karim & Moizer, 1996). This dummy variable represents 1 for the company audited by the Big 4 and 0 for non-Big 4.

2.1.4. Engagement attributes

Knechel and Payne (2001) argued that engagement lag influences the price charged by auditors as a longer delay is likely to indicate problems during the audit. On the other hand, a shorter time lag may also indicate an efficient internal control which reduces audit work (Ezzamel, Gwilliam, & Holland, 1996). Therefore, the number of days from financial year-end to the signing of results by auditors was adopted as a proxy for the time lag.

Craswell and Francis (1999) and Hay, Knechel, and Wong (2006) opined either a high audit fee in the busy period or discounted audit fee for work outside the busy season. Therefore, a dummy variable represents 1 for IFRS post-adoption period and 0 for the other.

2.2. Theoretical framework

2.2.1. Agency theory

Agency theory was credited to Stephen Ross and Barry Mitnick (Mitnick, 2006). It is an arrangement where a principal engages an agent to do somethings on his behalf. Agency costs are used to solve the problem relating to agent decisions (Ittonen, 2010; Farrer & Ramsay, 1998). Soyemi and Olowokere (2013) contended that objectives and usefulness of audit are essential to mitigate shareholders' fear and prevent distrust in auditors. Mustapha and Ahmad (2011) asserted that the need for extensive audits would be reduced by management ownership suggesting that auditors could rely on preceding audits, thereby maximizing time and cost. Companies that engage in unethical practices face increased audit risk and perform more audit services (Wang & Yang, 2011). Watts and Zimmerman (1986) opined that audit demand as a bonding or monitoring mechanism arises as agency costs rise. Hope, Langli, and Thomas (2012) asserted that the higher agency cost arises from window dressing of account. Therefore, supervisory activities by shareholders are needed to rationalize agency costs. It implies that shareholders' protection has an inversely proportionate influence on audit fees, reducing potential audit risk. In essence, a lesser effect is expected on auditors and, therefore, reduces requests for multinational audit firms.

2.2.2. Economic theory of product differentiation

The audit market is oligopolistic because fewer audit firms can influence market conditions through their strategies, which rely on reactions of other firms in the same market (Ribstein, 2002; Armstrong, 2008). The theory was credited to John Beath and Yamus Katsoulacos in 1991 (Beath & Katsoulacas, 1991). They asserted that a firm’s differentiation strategies cause bargaining power to increase because assurance clients cannot get similar services from rival audit firms. Under this circumstance, the audit firm may gain a fee premium for its specific services through experience and reputation (Karim & Moizer, 1996). Recognizing the dynamic nature of market competition, Chin and Chi (2008) and Chan et al. (1993) argued that the competitive pressure on an incumbent auditor’s fee hinges upon the ease with which the assurance clients can switch to a competing audit firm. Therefore, competing firms should practice mutual forbearance by refraining from competing aggressively in their competitors’ local industries to avoid aggressive rivalry in their local industries (Numan & Willekens, 2012; Reichelt & Wang, 2010). Additionally, large clients can use their expertise to bargain downwards by threatening to change auditors (Casterella, Francis, Lewis, & Walker, 2004; Huang, Liu, Raghunandan, & Kama, 2007).

In conclusion, prevailing sectors’ forerunner will have a reputation for high audit quality since clients of industry leaders have a higher likelihood of receiving going concern audit opinions when in financial distress (Reichelt & Wang, 2010; Chin & Chi, 2008).
2.3. Empirical pieces of evidence

2.3.1. Firm's specific factors

Musa et al. (2020) analyzed the effect of auditee’s factors on the audit fee of listed firms in the consumer goods sector of Nigeria, adapting Craswell and Francis's (1999) audit fee model. The study showed that firm size significantly affects the audit fee charged by audit firms. Musah (2017) employed a panel regression technique to assess Ghana’s influential audit pricing factors applying Simunic’s template. It was revealed that size matters when pricing audit fees. Influential variables influencing audit price in Japan were explored using the panel regression technique by Hossain, Yazawa, and Monroe (2017). It was reported that firm size directly affects audit fees. From 2008 to 2014, the contributing factors of audit fee in the 41 quoted companies in Nairobi were examined by Kimeli (2016). The static panel regression method revealed that firm size positively influences audit fees. VuHaq and Leghari (2015) used the constructed panel data set to investigate the determinants of audit fees of 150 companies in Pakistan between 2007 and 2011. A significant positive association between auditee size and audit fees was shown. Sou, Ahn, and Choi (2017) used a panel regression technique to study the downward force on audit pricing during the economic meltdown in 2008. The study revealed that audit fees fell during the financial crises as there exists a significant inverse association between the two variables. Abdulmalik and Ahmad (2016) observed how the risk management committee predicts audit price in Nigeria. The study covered the 2008 and 2013 and random panel regression analyses to analyze the unbalance data obtained from companies’ annual reports. The study established an inverse but significant relationship between audit fees and the risk. Audit fee of different ownership structure was observed by Ask and Holm (2013). The study samples 2213 firms and its scope span between 2001 and 2010. A direct correlation of audit fees with auditee risk was ascertained. A positive relationship was also seen between price and risk in the United States (US) health sector by Yuan et al. (2012) using pooled ordinary least squared between 2004 and 2009. Employing panel analysis, Choi, Kim, Liu, and Simunic (2008) analyzed the influence of auditee risk and legal regime on auditor charges of 15 sampled nations between 1996 and 2002. It was discovered that there exists a significant and positive association between risk and audit fees of the sampled companies. Gonthier-Besacier and Schatt (2007) applied the two-stage least square method to evaluate the factors impacting audit fees in France from 2002 to 2006. The result evidenced that risk has a progressive influence on auditor remunerations of firms in France. Mohammed and Saed (2018) evaluated the factors determining audit fees in the alternative investment market of the United Kingdom (UK). The scope of the study spans between 2007 and 2011. The panel estimation implied that the complexity of firms also contributes to the variation in audit fees. Utilizing the panel estimation method, Davidson (2015) ascertained the factors determining audit fees in firms quoted in the South African Stock exchange from 2009 to 2013. A positive and significant association was found by the study between complexity and audit fee. Urhoghide and Emeni (2014) investigated audit fee determinants in Nigeria. The study selected 153 firms across the 11 sectors, and data gathered between 2007 and 2012 were analyzed through the static panel regression technique. The outcome revealed that auditee complexity has a non-inverse correlation with the audit fee. A direct connection occurs between firms’ complexity and audit fees of organizations involved in compulsory audit and non-mandatory audits. It was evidenced in Camerani's (2005) work, which analyzed Italy’s audit charges using the panel regression technique. After applying the two-stage least square, the comprehensive factors of auditor remuneration, non-audit price, and irregular accrual in the UK quoted firms were investigated by Antle, Gordon, Narayanamoorthy, and Zhou (2006). They conclude that the operational complexity of the auditee has a significant and direct influence on audit fees.

It was investigated by Lemonakis, Ballas, Ballas, and Garefalakis (2018) if company profitability significantly impacts pricing policy. The result evidenced that profitability impacts the audit fee negatively in the crisis period (2008–2010). Conversely, profit has an upward pressure with remunerations before the crisis period (2004–2007). Apadore and Letchumanan (2016) analyzed the effective variables of audit prices in the Malaysian economy in 2016. Their outcomes disclosed a significant and positive connection between gains and pricing. Auditor charges determinants in Kenya quoted firms were observed by Kimeli (2013) using data spanning 2008 to 2012. He concluded that there exists a negative but significant association between audit fees and firm profitability. De George et al. (2013) examined the influence of IFRS adoption and companies profit on audit fees from 2001 to 2005. A positive interaction was shown between profitability and pricing. Finally, El-Gammal (2012) studied the factors determining audit fees in Lebanon for the year 2012. It was ascertained that a significant downward slope exists between charges and client profitability.

2.3.2. Audit firm’s characteristics and engagement attributes

In a study of selected deposit money banks (DMB) quoted on the Nigerian Stock Exchange, Ndubuisi and Ezechukwu (2017) observed the determinants of audit fee and audit quality from 2010 to 2015 using static panel data regression analyses. Their findings showed that audit firm tenure displays a significant association with the audit fee. André, Bruye, Pong, and Schatt (2016) observed the association between joint audits and higher audit fees. They compared audit fees paid during 2007–2011 by listed companies in France where a joint audit is mandatory with those paid in British and Italian companies. They concluded that audit price in countries with higher investor protection, such as the UK, is greater than those in countries with lower investor protection. Choi et al. (2010) used a large sample of the US audit client firms over 2000–2005. The paper checks whether and how the size of
a local practice office within an audit firm is significant. The result showed that auditor size has a significant positive impact on audit fees. In a study of 3047 US companies, Casterella et al. (2004) analyzed the influence of auditor’s industry specialization and client bargaining power on audit pricing. The result revealed that Big 6 industry specialist charge higher fee and that audit fee is lower when a client has greater bargaining power. Also, the audit fee reduces as tenure with the same firm increases. In Carson, Fargher, Simon, and Taylor’s (2004) work on the impact of industry knowledge on audit pricing in the Australian market for audit service, a positive and significant association was found between audit fee and industry specialization. Also, the study revealed that companies cross-listed on the US stock exchange paid higher audit fees in Australia. Van Caneghem (2010) analyzed the impact of Big 4 on the audit fee of the Belgium market for audit services. The result for non-financial firms showed that the Big 4 effect is seen in the Belgium market, and a higher fee is charged by Big 4 even when companies are not listed on the stock exchange. Al Harashi (2008) looked into the nature of audit pricing in Kuwait listed companies and if the Big 4 effect is seen in the market for audit service. The result showed that no significant influence exists between the audit fee and the Big 4 effect.

Karim and Hassan (2012) observed the relationship between audit fee and Big 4 dichotomy during surge economic growth in Bangladesh market for audit services. The result for ordinary least square showed that Big 4 companies do not dominate the Bangladesh market and that audit fee is not associated with multinationalism. Using ordinary least square (OLS), Bedard and Johnstone (2010) investigated the association between engagement partner tenure, audit planning, and audit pricing in America. A significant and positive association was found for audit fees and long partner tenure. Finally, Hassan and Naser (2013) assessed the forces affecting the audit fee of non-financial corporations listed on the Abu Dhabi Stock Exchange (ADX) in 2011. The panel regression evidenced that auditor report lag and industry type drives audit fee positively impact report lag and negative with industry type. The result also showed that audit firm status has no significant impact on audit fees.

Abbott, Park, and Parker (2000) examined the association between audit pricing and audit engagement attributes in France listed companies. The result of their findings revealed that there is a very strong and significant relationship between audit fees and busy periods. They observe that December year-end companies have a lower likelihood of changing auditors to avoid high switching costs due to the busy period. Niemi (2004) studied the determinants of audit fees in the Finland market for audit service. Their findings showed that differentiation in audit quality among audit firms and auditors brand name greatly impacted auditor remuneration paid.

3. METHODOLOGY

The population of this study comprises the 173 companies quoted on the Nigeria Stock Exchange (NSE) as of June 2019. Thirty (30) firms were selected from 57 firms in the financial sector, and 45 firms were selected from 116 firms in the non-financial sector based on data availability. This study largely depends on the sampled companies audited financial statements covering 10 years (2009–2018).

This study employs an ex-post facto research design since it probes and utilizes existing data. This study built a model similar to that of Craswell and Francis (1999), Kimeli (2013), Cameren (2005), and Musa et al. (2020). The model is shown as follows:

\[
\text{LnAF}_{it} = \beta_0 + \beta_1 \text{lnFSZ}_{it} + \beta_2 \text{RSK}_{it} + \beta_3 \text{CMX}_{it} + \beta_4 \text{PRF}_{it} + \beta_5 \text{AUZ}_{it} + \beta_6 \text{REP}_{it} + \beta_7 \text{EXP}_{it} + \beta_8 \text{BIG4} + \hat{\epsilon}_{it}
\]

where:

- \( \text{LnAF}_{it} \) = Log of audit fee of firm \( i \) at period \( t \).
- \( \text{lnFSZ}_{it} \) = Log of auditee size of firm \( i \) at period \( t \).
- \( \text{RSK}_{it} \) = Auditee risk of firm \( i \) at period \( t \).
- \( \text{CMX}_{it} \) = Auditee complexity of firm \( i \) at period \( t \).
- \( \text{PRF}_{it} \) = Auditee profitability of client \( i \) at time \( t \).
- \( \text{AUZ}_{it} \) = Auditor size of a company \( i \) at time \( t \).
- \( \text{REP}_{it} \) = Auditor reputation of firm \( i \) at period \( t \).
- \( \text{EXP}_{it} \) = Auditor experience of firm \( i \) at period \( t \).
- \( \text{BIG4} \) = Dummy variable taken 1 if done by Big 4 firm and 0 if otherwise.
- \( \text{TLAG} \) = Time lag of firm \( i \) at period \( t \).
- \( \text{SSN} \) = Dummy variable, if reporting period is Dec-Mar = 1, else = 0.
- \( \text{IFRS} \) = Dummy variable taken 0 for pre-transition period and 1 if otherwise.
- \( \beta_0 \) = Intercept parameter.
- \( \beta_1 \ldots \beta_8 \) = slope parameters.
- \( U_{it} = \mu_i + \lambda_{it} \) = Stochastic error term.

This study projects a direct interaction between complexity, size, profitability, auditor size, reputation, experience, Big 4, IFRS, and audit fee, while a negative correlation is expected for risk, time lag, and season.

This study employed descriptive and inferential statistics. The descriptive statistics show the mean, standard deviation, minimum and maximum values of variables. For inferential statistics, static panel data analysis was used to analyze the constructed panel data set. The strategy to know whether the effects are fixed or random is to use the Hausman (1998) test under the null hypothesis (H0) of the random effect model. If the H0 is debunked, the effect is fixed, and OLS then estimates the model. On the other hand, if the H0 is acknowledged, there would be a random effect, and the model is then estimated by generalized least squares (GLS), which according to Baltagi (1995), allows the random effect model to support the inference of the population, assuming the sample is representative of the underlying population.
4. DATA PRESENTATION

4.1. Descriptive information

The summary indicators of this study are conveyed in Table 1, which reveals the minimum, maximum, average, and standard deviation of audit fees and its explanatory variables utilized in this study. The outcome in Table 1 shows that the auditor’s charges in the non-financial sector (proxied with the Log of total remunerations paid by auditees for a reporting period) range between NGN7.19 billion and NGN13.63 billion. It has an average value of NGN10.43 billion with a deviation of NGN1.51 billion. The table also reveals that the audit fee in the financial sector spans from NGN7.44 billion to NGN14.74 billion. It has a mean of NGN10.02 billion displaying a deviation of NGN0.57 billion. Thus, it indicates that firms in the non-financial sector of the Nigerian stock market offer more than firms in the financial sector on average from their entire revenue.

Table 1. Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Non-financial sector</th>
<th>Financial sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>AF</td>
<td>450</td>
<td>10.43</td>
</tr>
<tr>
<td>FSZ</td>
<td>450</td>
<td>18.08</td>
</tr>
<tr>
<td>RSK</td>
<td>450</td>
<td>17.42</td>
</tr>
<tr>
<td>COPX</td>
<td>450</td>
<td>1.38</td>
</tr>
<tr>
<td>PRF</td>
<td>450</td>
<td>7.39</td>
</tr>
<tr>
<td>AUS</td>
<td>450</td>
<td>14.94</td>
</tr>
<tr>
<td>REP</td>
<td>450</td>
<td>0.30</td>
</tr>
<tr>
<td>EXP</td>
<td>450</td>
<td>44.11</td>
</tr>
<tr>
<td>Big 4</td>
<td>450</td>
<td>0.64</td>
</tr>
<tr>
<td>FLAG</td>
<td>450</td>
<td>93.03</td>
</tr>
<tr>
<td>SSN</td>
<td>450</td>
<td>0.34</td>
</tr>
<tr>
<td>IFRS</td>
<td>450</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Source: Authors’ calculation.

However, as presented in Table 1, the mean total assets of non-financial companies was NGN 18.08 billion spanning from NGN 14.27 billion to NGN 22.14 billion with the deviation of NGN 2.08 billion average. On the other hand, financial firms have a total asset on the average of NGN 16.88 billion ranging from NGN 12.13 billion to NGN 24.51 billion and showing NGN 1.89 billion deviation from its average rate.

Auditee risk in the non-financial sector, which was accounted for by the proportion of enterprise debt to total assets, ranges from 0% to 52.36%. It has a mean of 17.42%, with a deviation of 20.37% from its mean value. On the other hand, auditee risk in the financial sector reveals a deviation of 32.11% from its average value of 26.93%, ranging between 0% and 27.99%. It implies that financial firms are highly geared towards an average than non-financial firms.

As for complexity, in the non-financial sector, it has a minimum value of 0 and a maximum of 19, with an average value of 1.58 showing a deviation of 3.67 from its mean value. On the other hand, complexity in the financial sector shows a mean of 4.20 and a deviation of 4.51, ranging from 0 to 21. Therefore, it implies that auditing in the financial sector is more complex than auditing in the non-financial sector.

The profitability average was 7.79%, with a deviation of 19.06% over the period under review while it ranges from -36.66% to 60.04%. The financial sector of the Nigerian Stock Exchange shows a ROA ranging from -38.63% to 37.19%. It has a standard deviation of 7.92% away from its mean value of 2.41%. Therefore, it can be adduced that the non-financial sector is more profitable than the financial sector in Nigeria.

From the auditor’s corner, the mean auditor size in the two sectors is 14.94 and 15.86. It ranges from 2 to 32 and 3 to 32. It also reveals 8.40 and 8.17 deviations from its mean values. Furthermore, the auditor experience shows a mean of 44.11 and 41.57 years. It ranges between 5 and 65 years and has a deviation of 17.94 and 18.08 years, respectively. Finally, the mean audit engagement time lag is 93 days and 102 days in the two sectors. It depicts a deviation of 53 and 52 days ranging from 6 days and 308 days for non-financial firms and 13 days and 360 days for the financial sector.

4.2. Multicollinearity check

Higher correlations among the explanatory variables are dangerous and render the results of the regression estimator unreliable. Therefore, it is important to fulfill the regression (OLS) estimator’s assumptions and expect high exactness from the technique (Koutsoyiannis, 1977). In overcoming this, the variance inflation factor (VIF) was employed for checking the presence of multicollinearity among determinants of audit pricing.

Table 2. Variance inflation factor (VIF)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Non-financial sector</th>
<th>Financial sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VIF</td>
<td>Z-VIF</td>
</tr>
<tr>
<td>FSZ</td>
<td>1.56</td>
<td>0.64</td>
</tr>
<tr>
<td>RSK</td>
<td>1.13</td>
<td>0.80</td>
</tr>
<tr>
<td>COPX</td>
<td>1.33</td>
<td>0.78</td>
</tr>
<tr>
<td>PRF</td>
<td>1.99</td>
<td>0.92</td>
</tr>
<tr>
<td>AUS</td>
<td>3.98</td>
<td>0.23</td>
</tr>
<tr>
<td>REP</td>
<td>1.06</td>
<td>0.95</td>
</tr>
<tr>
<td>EXP</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>Big 4</td>
<td>4.40</td>
<td>0.25</td>
</tr>
<tr>
<td>FLAG</td>
<td>1.12</td>
<td>0.89</td>
</tr>
<tr>
<td>SSN</td>
<td>1.19</td>
<td>0.84</td>
</tr>
<tr>
<td>IFRS</td>
<td>1.28</td>
<td>0.78</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.84</td>
<td>1.22</td>
</tr>
</tbody>
</table>

Source: Authors’ calculation.

In line with Table 2, both the VIF and tolerance values implied the independent variables do not have high correlations. It is evidenced as all the factors have less than a 10% VIF figure. Gujarati (2009) states that all variables whose inverse of variance inflation factor (I/VIF) value tends more towards zero have higher multicollinearity.
4.3. Model estimation selection

Post-estimation tests for static panel data analysis were conducted to know the appropriateness of the model to be used in this study. The Breusch-Pagan LM test was employed to know if the cross-sections are homogeneous. Furthermore, the Hausman test was utilized to determine which fixed and random effect models are consistent.

Table 3. Model selection procedure

<table>
<thead>
<tr>
<th>Variables</th>
<th>Non-financial sector</th>
<th>Financial sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fixed effect</td>
<td>Random effect</td>
</tr>
<tr>
<td>Constant</td>
<td>11.2493</td>
<td>2.3771</td>
</tr>
</tbody>
</table>

According to Table 3, the Breusch-Pagan test for random effect revealed 411.98 and 218.00 with 0.0000 and 0.0000 p-values, thus rejecting the proposition that the random effect discrepancy is zero. The alternative hypothesis is strongly accepted for the non-financial sector but debunked for the financial sector. It implies that the random effect model does not produce a superior and reliable estimate than the fixed-effect model for the non-financial companies/financial companies; thus, estimate from random effect model is interpreted to explain the determinants of audit fees of quoted non-financial firms in Nigeria.

Table 4. Model results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Non-financial sector</th>
<th>Financial sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fixed effect</td>
<td>Random effect</td>
</tr>
<tr>
<td>Auditee’s factors</td>
<td>FSZ</td>
<td>-0.0338</td>
</tr>
<tr>
<td>Auditor’s characteristics</td>
<td>AUR</td>
<td>-0.0246</td>
</tr>
<tr>
<td>Engagement attributes</td>
<td>TLAG</td>
<td>-0.0221</td>
</tr>
<tr>
<td>Control variable</td>
<td>IFRS</td>
<td>0.1862</td>
</tr>
</tbody>
</table>

Notes: ***, ** and * symbolize significant at 1%, 5% and 1% respectively. Also, p-values are shown in parentheses.

Table 4 expresses the linear association between contributing variables of audit charges and audit fees of quoted non-financial and financial sectors in Nigeria, using the panel regression method. The table shows the result of fixed effect/random effect regression analysis for the non-financial/financial sector. Concerning the significance and sign in the non-financial sector, it can be seen that auditee profitability, auditee complexity, Big 4, IFRS, and negative symbol for company’s risk and engagement lag. The random-effect model of the financial sector shows that auditee size, auditee profitability, auditor size, auditor reputation, auditor experience, Big 4, IFRS, and engagement lag correspond with a priori anticipation with direct signs for auditee profitability, auditee complexity, Big 4, and IFRS, and negative symbol for company’s risk and engagement lag.
financial sector reveals that only 7 variables significantly influence auditor remunerations as specified by coefficients with probability values. It means that if there is a NGN 1% rise (fall) in company size, it will induce a NGN 0.03% decrease (increase) in auditor’s charges. Also, if there is a 1% downward pressure (increase) in auditee risk, it will prompt a 9.1% improvement (reduction) in audit fees. The result also shows that if a unit decreases (increase) in auditee complexity, it will induce a 20.9% decrease (increase) in audit fees. The audit fee will decrease by 2.45% and 9.54% if the auditor size and reputation improve. Furthermore, a day increase in audit engagement lag similarly reduces audit fees by 2.21%. IFRS behaves as the auditor experience as the implementation of IFRS induces an 18.62% increase in audit fees. The coefficient’s magnitude in the financial sector reveals that only 8 variables influence auditors’ charges, as shown by its statistical values. It means that if there is NGN 1% upsurge (cut) in firm size, it will induce NGN 0.40% growth (drop) in the audit fee. Also, a 1% increase (decrease) in auditee risk will induce a 0.3% increase (decrease) in audit fees. The result also shows that a unit increase (decrease) in companies gain will induce a 6.79% increase (decrease) in audit fees. The audit fee will also improve by 1.75% and 45.18% if the auditor size and reputation improve. Furthermore, employing the service of Big 4 firms attract a 26.83% increase in audit fee. Audit engagement lag similarly reduces audit fees by 1.5%. Finally, IFRS adoption endangers audit fees by 28.30%.

5. DISCUSSION OF THE FINDINGS

The audit fee is an outcome of auditee size in both the financial and non-financial sectors of Nigeria, similar to Musa et al. (2020), Vu, Haq and Leghari (2015), Kimeli (2016), Soyemi and Olowookere (2013), and Vu (2012). However, auditee size has a negative impact in the non-financial sector but a positive impact in the financial sector. It may be due to operation complexity, financial analyst scrutiny, and public reward of the financial sector firms. As for the non-financial sector, it may be caused by advanced accounting and internal control systems.

Auditee risk is a crucial factor affecting audit fees in the Nigerian financial and non-financial sectors. This study discovered that auditors in the financial sector make more effort to lessen court case risks in the forthcoming, thereby supporting the work of Abdulmalik and Ahmad (2016) and Ask and Holm (2013). Similarly, this study induced that the non-financial sector is not compensated for a higher risk of audit failure, thereby providing evidence against the agency theory.

The complexity of the auditee only influences the audit fee in the non-financial sector. It implied that audit firms employ more human resources and time for transaction audits for highly expanded corporations with many affiliates. This result is in tandem with Urhoghide and Emeni (2014), Davidson (2015), and Caneghem (2011), but in contrary with André et al. (2016) and Yuan et al. (2012), who proposes higher audit fees to ensure investment protection.

However, whether an audit is done in a busy period impacts audit fees in Nigeria. This study inferred that a longer time lag would increase audit price due to the rush to file a tax return with tax authorities and meet the Securities and Exchange Commission (SEC) deadline for submitting an audited financial report. It is in agreement with the recent study of Hassan and Naser (2013) and Abbott et al. (2011), but it negatively relates to the audit fee of non-financial sector. This finding concurs partly with Choi et al. (2010), who hypothesized that auditor size significantly affects audit fees. The reason for this finding is not farfetched. It may be due to higher qualifications, focus expertise, service differentiation, and marketing strategies utilized by the audit firms.

In support of Carson et al. (2004), auditor reputation significantly impacts the audit fee of both financial and non-financial sectors. It implied that reputable auditors charge higher audit fees in the financial sector and lower fees in the non-financial sector. It may arise due to the necessity of a more appropriate plan and procedure for reasonable audit opinion in the financial sector.

Surprisingly, auditor experience does not in any way promote audit fees. Nevertheless, global Big 4 audit firms charge higher audit fees in the financial sector. This study finds evidence to imply that KPMG, Deloitte, PriceWaterhouseCoopers, and Ernst & Young possess industry specialization and strong bargaining power to increase audit fees in the financial sector. However, this finding did not agree with Al-Harshani (2008) and Karim and Hassan (2012), who opined that audit fee is not driven by auditor brand name. This study provides empirical supports to the finding of Casterella et al. (2004) and Van Caneghem (2010). It also substantiates the economic theory of product differentiation, which assumes a higher audit fee for a firm with higher bargaining power.

The period between financial year-end and date of audit is empirically proven to influence audit fees in Nigeria. This study inferred that a longer time lag would increase audit price due to the rush to file a tax return with tax authorities and meet the Securities and Exchange Commission (SEC) deadline for submitting an audited financial report. It is in agreement with the recent study of Hassan and Naser (2013) and Abbott et al. (2011), but in contrary with André et al. (2016) and Yuan et al. (2012), who proposes higher audit fees to ensure investment protection.

Congruent with Kimeli (2013) and El-Gammal (2012), who opined that auditors’ charges are negatively connected to auditee profitability. It may be due to lower gain firm monitoring costs, which will decrease overall control and engenders audit regulation. This study also induces that auditee profitability neither increases nor reduces audit fees in the non-financial sector.

Auditor size significantly affects audit fees in Nigerian financial and non-financial sectors. Also, it positively affects the audit fee of financial firms in Nigeria but negatively relates to the audit fee of non-financial firms. It implied that auditor size lowers audit pricing in the non-financial sector but improves audit price in the financial sector. This finding concurs partly with Choi et al. (2010), who hypothesized that auditor size significantly affects audit fees. The reason for this finding is not farfetched. It may be due to higher qualifications, focus expertise, service differentiation, and marketing strategies utilized by the audit firms.
6. CONCLUSION

This study surveyed the factors of audit fee in Nigerian quoted financial and non-financial firms utilizing the panel regression estimator method. Based on the estimated result from the model, this study evidenced that auditee risk, auditee size, auditee complexity, auditor size, auditor reputation, engagement lag, and IFRS implementation are the determinants of audit pricing in the non-financial sector of the Nigerian Stock Exchange. Further, the finding concludes that company size, company risk, company profitability, audit firm reputation, employment of Big 4 auditors, engagement time lag, and IFRS implementation are the only determining variables causing audit fee variation in the financial sector of the Nigerian Stock Exchange. This study is consistent with Musa et al. (2020), who inferred that firm’s specific factors of size, risk, and performance decide what audit fee will be, except complexity, which was not similar to the former research non-financial sector. Furthermore, this study supports Musah (2017), who affirmed that audit fee pricing in the developing economy is influenced by auditee size, multinationality, and profitability. Ndubuisi and Ezechukwu (2017) suggested the inclusion of auditor’s factors in the audit pricing model of Nigeria. It implied that assurance clients should thoroughly consider both attributes of auditors, auditees, and engagements in determining audit pricing.

Based on the results, the following policy recommendations were suggested. Guidelines and practices that will ensure openness, fairness, and reporting should be outlined by companies in the two sectors since the size, risk, and complexity react in the opposite direction with remunerations.

By this, the protection of stakeholders, functioning audit committee, effective internal control, and board monitoring will be assured. Secondly, Institute of Chartered Accountants of Nigeria (ICAN) and Association of National Accountants of Nigeria (ANAN) should, through their training and workshop, set procedures that will safeguard conformity with professional regulations and technical standards; this will subject auditors to consider company risk and auditors characteristics when going into engagements. Also, regulatory agencies (SEC and NSE) should develop policies to ensure engagement time lag improvement to ensure firms do not rush into engaging an audit firm. Finally, other fees that affect professional independence, if relied upon, should be disclosed.

This study is limited by not accounting for some factors that also determine audit fees in the three dimensions of the determinants. The inclusion of these factors may go a long way to improve the result of this study. Also, the non-availability of data that led to the exclusion of some firms constraint this study as its findings may be better through the inclusion of the corporations. Further studies should consider including the excluded variables and a larger sample in the two sectors. This study contributes to the literature on audit fees in Nigeria, developing countries, and the world since it provides empirical evidence on audit fees while combining the actors of audit pricing in the three aspects of auditors, auditees, and engagement. The comparison of financial and non-financial sectors provides information to annual reports users on the similarities and differences regarding the regulation, challenges, and assets structure. It will serve as an eye-opener to sector regulators, financial analysts, and researchers.

REFERENCES


