IMPACT OF FIRM’S SPECIFIC FACTORS ON AUDIT FEE OF QUOTED CONSUMER GOODS FIRMS


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Abstract

Greater pricing presume on audit service has been put by the regulations of the auditing and accounting practices for the disclosure of audit fees, since audit fee is directly related to audit quality. However, the audit fees perceived by the client is often different from the amount charged by the auditors. Hence, this study investigated the impact of firm-specific characteristics on audit fees of quoted consumer goods firms in Nigeria using a purposive sampling technique. Secondary data were obtained from annual reports of the companies for the period from 2009-2016. The empirical result from Breusch-Pagan Lagrange Multiplier Test (BP-LM) produced a chi-square value of 13.94 with p-value of 0.0001 indicating that pooled ordinary least squares (OLS) will not be appropriate for the study. The Hausman test showed a chi-square of 23.55 with a p-value of 0.001 indicating that the null hypothesis is strongly rejected. Thus, the only estimate from the fixed effect model was interpreted to explain the relationship between firm-specific characteristics and audit fees of quoted consumer goods firms in Nigeria. The result revealed that auditee size, auditee risk, auditee profitability and IFRS adoption are the firm-specific characteristics that impact on audit fees with only auditee size and IFRS adoption being positively related to audit fees while the other factors are negatively related to audit fees. Based on this finding, this study concluded that the firm's specific factors are the major drivers of audit fees in Nigeria consumer goods firms. This study recommends among others that companies should implement corporate governance principles that address issues relating to board independence and committee sizes to guide activities in the consumer goods sector since profitability behave negatively with audit fees.

Keywords: Firm-Specific, Factors, Audit Fee, Consumer Goods

1. INTRODUCTION

The basis for the approval of audit standards and services in Nigeria is the International Standard on Auditing (ISA) issued by The International Auditing Practice Committee (IAPC) of the International Federation of Accountant (IFAC). Regulatory authorities have ordered that audit fees must be disclosed in the company annual report in line with the 2004 Company Act in order to resolve conflicts...
of interest among stakeholders. This implied that auditors’ services are required for the credibility of the financial statement.

Greater pricing presume on audit service has been put by the regulations of the auditing and accounting practices for the disclosure of audit fees, since audit fee and audit quality have a positive relationship (Vu, 2012). Conversely, there is a difference in audit fee perception between clients and auditors. Hence, the pricing of audit fees and the fairness of the amount charged require evaluation (Kwong, 2011). Audit fees are determined by client-specific factors (such as size, profitability, complexity and risk of the corporation/company) or by audit firm attributes (such as size, reputation, experience, competitiveness, industry specification and big four dichotomies (Kimeli, 2016; Joshi & Al-Bastaki, 2000). The most important variables in explaining the audit fee level are the firm-specific factors. To start with, the amount to be charged by the auditor is influenced by the client size client since more effort and time have to be allotted by auditors of large organizations in data analyses and testing (Davidsson, 2015; Simon, 1995; Pong & Whittington, 1994). Accordingly, a complex relationship exists between risk and audit fee since perceived numerous risks necessitate compensation for audit failure (Ask & Holm, 2013; Brinn, Peel, & Roberts, 1994). On the one hand, low profitability could be linked with higher audit fee or pressure which would eventually lead to increased audit work to verify if the company is in a stable condition. On the other hand, less concern may be paid to overheads which will imply higher audit fee for greater profitability (Apodare & Letchumanan 2016; Karim & Moizer, 1996).

In the emerging economies, less attention is paid to audit fee and market as compared to the developed economies where it is a subject of study. Hay, Knechel, and Wong (2006) argued that the significance of some variables changes according to the period of analysis, sectors and country-specific characteristics. They concluded and recommended that audit fees should be revised periodically.

One of the main concerns of audit fees is to find out how it is determined by auditors. Also, different fees charged by auditors led to the controversy which raises a question about the effect of size, profitability, complexity and risk on audit fees (Al-Matarneh, 2012). Also, limited research was done after the adoption of the International Financial Reporting Standard (IFRS), while empirical findings from the work of De George, Ferguson, and Spear (2013) suggested that firms with greater exposure to audit complexity exhibit greater increase in compliance costs for the transition to IFRS. Furthermore, Goncharov, Riedl, and Selhorn (2012) opined that audit fees are at a minimum when property assets are reported using fair value compared to depreciated cost. This study raised research questions on the extent to which firm-specific factors affect the audit fees of consumer goods firms in Nigeria. This was done in an effort to prove empirically with verifiable evidence the importance of corporate size, profitability, complexity and risk on audit fees.

The following null hypotheses (H0) were formulated and tested:

- H0: Auditee corporate size does not have a significant impact on the audit fee of quoted consumer goods firms in Nigeria.
- H0: Auditee profitability does not significantly affect the audit fee of quoted consumer goods firms in Nigeria.
- H0: Auditee complexity does not significantly affect audit fees of quoted consumer goods firms in Nigeria.
- H0: Auditee risk does not significantly affect audit fees of quoted consumer goods firms in Nigeria.

A number of research works have been done on the determinant of audit fee outside Nigeria using different techniques, methods and instruments of analysis (Xiwang, 2016; Davidson, 2015; Cameran, 2005; Bondari, 2013; Vu, 2012; Yuan, López, & Forgione, 2012; Gonthier-Besacier & Schatt, 2007). However, few studies have been carried out within an emerging economy, like Nigeria, and most of the studies that exist for developing economies (Kiptum, 2013; Ling, Yee, Liang, Yee, & San, 2012; Hassan & Naser, 2013) focus on their individual countries. The study of Soyemi and Olowookere (2013) paid attention to the banking sector in the post-consolidation periods, but before the adoption of International Financial Reporting Standards (IFRS), while the study of De George et al. (2013) for Australia found empirical evidence for the impact of IFRS adoption on the audit fee of publicly-traded companies on the Australian Stock Exchange (ASX). Hence, it is important to examine the impacts of firm-specific factors on the audit fees of quoted consumer goods firms in Nigeria while controlling for the effect of IFRS pre-transition and post-transition periods.

An audited financial statement for fifteen (15) consumer goods firms was obtained from their respective annual reports from the year 2009-2016. The year 2009 was chosen as a starting year on the rationale that the global economy started recovery from economic recession. Also, 2016 was the end year in which most of the consumable goods firms published their annual reports. This choice of the consumer goods sector is that the sector guaranteed higher turnover from commodities bought and sold on a daily basis. Hence, this contributes to wealth creation, employment generation, poverty alleviation and positive growth in the Gross Domestic Product of the nation. Also, companies in the sector constitute a larger percentage of non-financial goods firms. It is believed that this sector will be a good representative of the non-financial goods firms.

Section 1 contains brief introduction, research questions, research hypotheses and justification of this study. Section 2 focuses mainly on the conceptual review, theoretical review and empirical evidences with discussion of research gap. Section 3 discusses the research methodology of this paper. Section 4 looks into data presentation, data analyses and data interpretation. The last section provides the conclusion and recommendations to this paper.

2. LITERATURE REVIEW

2.1. Conceptual issues

The audit fee is the sum payable/paid to the auditor for audit services offered to the auditee (client). Simunic (1980) viewed it as what the economic cost
of efficient auditors reflects. Accordingly, professional accountant ethical code suggested quotation of appropriately defined fee when a professional accountant is entering into professional services (International Auditing and Assurance Board (IAASB), 2012). Also, the scale of professional fee of the Institute of Chartered Accountants of Nigeria (ICAN) affirms that a reasonably or justly paid auditor should ensure the delivery of quality services for the need of private sector clients, public sector clients, regulatory authorities and general public. This is as a result of various indications of practitioners charging ridiculous audit fee (Soyemi & Olowookere, 2013).

2.1.1. Nature of audit service market in Nigeria

A good deal of regulatory rulings in Nigeria enforces firm to have their financial statement audited by a chartered accountant, including the Company and Allied Matters Act (CAMA), Laws of Federal Republic (LFN) (2004), FIRS Act (2007), Insurance Act (1976), Securities and Exchange Commission Act and the Banks and other Financial Institutions Act, LFN (2004). An auditor must have a practicing license and must be a member of a professional body such as ICAN and ANAN. Currently, some of the multinational audit firms have offices in Nigeria. These firms are regarded as Big 4 firms consisting of KPMG professional services, Akintola Williams (Delloite), PricewaterhouseCoopers (PWC) and Ernst & Young (EY). The demand for audit work has increased so fast due to the formation of companies in different sectors of the Nigerian economy. Presently, there are eleven (11) sectors listed on the Nigerian stock exchange as of December 2017. The market for audit service is no longer restricted to private companies and government firms as there is also a demand for audit services from non-governmental and not-for-profit making organizations due to influence in foreign aid and grant from local and international donors who channel their donation to NGO who use the funds judiciously.

2.1.2. Size of the corporation

This is perceived as a structural property with the degree of formalization and conventional variable in the report of the number of people, resources and audit of activity involved in the organization (Javed & Khan, 2011). Corporate size is considered as one of the main variables on the ground that auditors who audit large firms tend to expend more time on clients’ transaction audits (Naser, Al Kandari, Al-Mutairi, & Nuseibeh, 2013; Naser & Nuseibeh, 2007). Auditing the account of firms that operate in different sectors of the Nigerian stock market is no longer restricted to private companies and government firms as there is also a demand for audit services from non-governmental and not-for-profit making organizations due to influence in foreign aid and grant from local and international donors who channel their donation to NGO who use the funds judiciously.

2.1.3. Profitability of the corporation

The word profitability is composed of two words namely: “profit and ability”. The term profit is the excess of sales over cost of sales and ability denote its earning power of operating performance. It is summarized as the ability of a given investment to yield a reasonable return for its use (Tulsian, 2014). Profitability is also viewed as the firm ability to make/earn profit from the entire business activities which reflects management efficiency in resources utilisation. The relationship between profitability and audit fees can be direct or inverse, vis-a-vis the formerly identified factors influencing audit fees. It might be seen that higher profit firms will be subject to rigorous audit testing of revenue and expenses which will entail higher audit fees (Kiptum, 2013; Joshi & Al-Bastaki, 2000). Others suggested that under-performing companies will more likely control their overhead which will reduce internal control and engender more audit control.

2.1.4. Complexity of the corporation

Complexity is defined as the system which contains many entities that have a high level of non-linear association (Apadore & Letchumanan, 2016). The ratio of receivables to total assets, the number of branches and subsidiaries are common pointers of auditee complexities. Highly diversified organisations with many subsidiaries have a complex operation that will need comprehensive checking and balancing by the auditors. Hence, high audit fees will be charged by the auditors for complex services of clients (Kimeli, 2016). He further opined that foreign subsidiaries need to adhere to several laws and disclosure requirements which necessitate more manpower and time by the auditor to conduct their transaction checking.

2.1.5. Risk potential of the corporation

Buckham, Wahl, and Rose (2010) described the risk as unknown changes in a legal situation that made the guarantor prone to social, economic and business change. UlHaq and Leghari (2015) conceptualized risk as fear that the auditors would be responsible for the failure of a business, misstatements in financial statements, loss of revenue and damage of reputations. Vu (2012) opined that higher auditee risk leads to the more efforts auditors have to make to decrease litigation risks in the future. In the case of clients with bad financial conditions, auditors will charge higher risk premiums. Subsequently, audit fees increase. Summarily, auditee risk is a material misstatement of the financial statement after the completion of audit and issuance of the unqualified opinion. In essence, the risk assessment is a predicate to determining if the profitability of the service the auditor intends to render; it is a priority in business involvement and in order to avoid a disservice to clients. The risk appetite of the auditor should at the barest minimum equate the potential risk of the corporation in concern.
2.2. Theoretical review

There has been extensive use of agency theory in the field of auditing (Ittenson, 2010). An agency relationship is conceptualized by Mitnick (2006) as an agreement where one or more persons (principals) engage with another person (agent) to carry out a duty on their behalf by delegating some decision making authority to them. The agency problem is solved with agency costs when agents fail to make a decision in the best interest of the principal. The different perception of their goals will cause information asymmetric and thus the agency cost (Farrer & Ramsay, 1998). This theory was overemphasized by Stigler (1968) and in the early 1970s (Mitnick 2006). Soyemi and Olowookere (2013) argued that information asymmetry can cause shareholders loss of trust in their auditors and thus it is important to clarify the development of audit, its objectives and usefulness. Mustapha and Che Ahmad (2011) opined that management ownership will reduce the need for extensive auditing which is termed the reduction of monitoring motivation of audit. This indicates that auditors need not to undertake additional testing, thus reducing auditing fees. If agency problems become complex, auditors will need more time to inspect accounts and monitor management activities. Wang and Yang (2011) argued that companies that engage in unethical activities perform more audit services due to the increase in audit risk. Hope, Langli, and Thomas (2012) opined that higher agency cost is caused by the manipulation of earnings. Hence, shareholders monitoring is required to minimize agency costs. This indicates that higher protection of shareholders has a direct relationship with audit fees and pricing strategy in Greece. The result revealed that firms’ earnings have a significant positive relationship with audit fees in the pre-crisis period (2004-2007). Surprisingly, the result changed during the crisis period (2008-2010) as profitability impact negatively on audit fees. Apadore and Letchumanan (2016) observed the determinants of audit fees in Malaysian listed companies for the year 2016. Their results showed a significant positive relationship between audit profit and audit fees. Kiptum (2013) analysed the determinants of audit fees in Kenya listed firms from 2008 to 2012. The study showed that audit profitability negatively impacted audit fees. Mohammed et al. (2013) investigated the impact of IFRS adoption and auditee profitability on audit fees between 2001 and 2005. The pooled ordinary least square showed positive relationship between auditee profitability and audit fees.

Using ordinary least square, Al-Gamal (2012) analysed the determinants of audit fees in Lebanon for the year 2012. To lower the perceived audit risk. Thus, less effect is supplied to auditors and demand for Big 4.

2.3. Empirical review

2.3.1. Audit fees and corporation size of auditee

The determinants of audit fees in Ghana were examined by Musah (2017) using panel regression technique. Utilising Simunic’s (1980) audit fee model, it was discovered that client size significantly matters in audit price determination. Hossain, Yazawa, and Monroe (2017) investigated the determining factors affecting audit fees in Japan using the regression method. The estimated result indicated that size has a positive association with audit fees. Kimeli (2016) analysed the determinants of audit fees in forty-one (41) listed firms in the Nairobi Stock Exchange from 2008 to 2014. The pooled ordinary least square pointed out that audit fee is significantly positively related to auditee size. In a study of one hundred and fifty (150) companies, UHfaq and Leghari (2015) investigated the determinants of audit fees in Pakistan from 2007 to 2011. The pooled ordinary least square showed a significant direct relationship between auditee size and audit fees.

Using pooled ordinary least square, Soyemi and Olowookere (2013) examined the determinants of audit fees in the Nigerian banking sector from 2006 to 2012. Their result revealed that bank size is directly related to audit fees. In a study of sixty-four Iranian firms, Bondari (2013) evaluated the effective factors of audit fees between 2006 and 2009 using pooled ordinary least square. The result showed that firm size has a significant positive relationship with audit fees. Using ordinary least square, Vu (2012) investigated the determinants of audit fee in a sample of one hundred and fifty Swedish listed non-financial firms for the year 2010. The result showed a positive association between audit fees and firm size.

2.3.2. Audit fees and auditee profitability

Lemonakis, Ballas, Ballas, and Garefalakis (2018) observed whether the restatement of internal control reports and earnings significantly affect audit fees and pricing strategy in Greece. The result revealed that firms’ earnings have a significant positive relationship with audit fees in the period (2004-2007). Surprisingly, the result changed during the crisis period (2008-2010) as profitability impact negatively on audit fees. Apadore and Letchumanan (2016) observed the determinants of audit fees in Malaysian listed companies for the year 2016. Their results showed a significant positive relationship between auditee profitability and audit fees.

Using ordinary least square, El-Gamal (2012) analysed the determinants of audit fees in Lebanon for the year 2012. To lower the perceived audit risk. Thus, less effect is supplied to auditors and demand for Big 4.

2.3.3. Audit fees and auditee complexity

Employing pooled ordinary least square, Mohammed and Saeed (2018) examined the determinants of audit fees in the United Kingdom (UK) alternative investment market between 2007 and 2011. It was revealed that auditee complexity contributes to the variation in audit fees. Davidson (2015) evaluated the determinants of audit fee in South Africans listed firms from 2009 to 2013 using pooled ordinary least square. The study found a significant directly proportional association between audit fee and auditee complexity. Cameran (2005) observed the audit fees and large auditor’s premium in the Italian market using pooled ordinary least square. The finding showed that a direct relationship exists between audit fees and auditee complexity of companies that engage in voluntary audit and mandatory audit. Antle, Gordon, Narayamoothy, and Zhou (2006) examined the joint determinants of audit fees, non-audit fees and abnormal accrual in the United Kingdom Listed firms using two-stage least square. The result showed that auditee operational complexity has a positive and significant relationship with audit fees.
### 2.3.4. Audit fees and auditee risk

Downward pressure on audit fees during the 2008 financial crisis was examined by Sonu, Ahn, and Choi (2017) using pooled ordinary least square. It was evidenced that risk has a significant negative effect on audit fees as audit fees drop during the financial crisis. Xiwang (2016) evaluated the determinants of audit fees in Chinese listed firms. The pooled ordinary least square showed a negative but significant relationship between audit fee and auditee risk. Ling et al. (2013) investigated the determinants of audit fees in Malaysian manufacturing companies using pooled ordinary least square. The study revealed that audit fees and auditee risk has a significantly positive relationship.

In a study of 2213 firms, Ask and Holm (2013) used pooled ordinary least square to observe the audit fee of different ownership structure between 2001 and 2010. They likewise ascertained that a direct relationship existed between audit fee and auditee risk. Yuan and Forgione (2012) analysed the audit fees of United States health sector between 2004 and 2009, the pooled ordinary least squared revealed a positive association between audit fees and auditee risk. Choi, Kim, Liu, and Simunic (2008) employed pooled ordinary least square to investigate the effect of country legal regime and auditee company risk on audit fees of fifteen countries from 1996 to 2002. The result also revealed that auditee risk has a significant positive impact on audit fees of the selected countries.

Gonthier-Besacier and Schatt (2007) analysed the factors influencing audit fees in France from 2002 to 2006. The two-stage least square revealed that auditee risk has a positive impact on audit fees of companies in France. Using cross sectional linear ordinary least square, Naser and Nuseibeh (2007) examined the structure of audit fees in an emerging economy in the year 2000 and 2001. The result revealed that risk is one of the major determinants of audit fees. Craswell and Francis (1999) studied the determining factors of audit fees in Australian firms, adopted pooled ordinary least square and the outcome consequently revealed a significant direct relationship between the audit fees and client specific characteristics.

### 2.3.5. Research gap

Quite a number of research works have been done on the determinants of audit fees. These studies include Mohammed and Saeed, (2018); Xiwang, (2016); Davidson, (2015); Cameran, (2005); Bondari, (2013); Kiptum (2013); Soyemi and Olowookere (2013); Yuan, (2012); Ling, Yee, Liang, Yee, and San (2012); Hassan and Naser (2013); Gonthier-Besacier and Schatt (2007). Therefore, this study stands out from other studies in Nigeria by considering IFRS adoption and the Big 4 as pivotal variables which have been identified empirically proven in aforementioned and etecetera literature as plausible determinants of audit fees, while consideration is also given to the pre-transition period and post-transition of IFRS.

### 3. Methodology

The population of this study consists of a total of twenty-one consumer good firms listed in the Nigerian Stock Exchange Market. The study uses a purposive sampling technique to select fifteen consumer good firms from this sector. The companies were selected based on data availability and balanced panel data was employed. The ex-post facto research design that adopts historical data decision making was as well employed in this study.

The study relied mainly on secondary data extracted from the audited financial statement of fifteen (15) consumer goods firms covering the period of 2009-2016.

The model used for this study is adapted from the work of Craswell and Francis (1999). This model is stated thus:

\[
\ln AF_{it} = \beta_0 + \beta_1 \ln FSZ_{it} + \beta_2 RSK_{it} + \beta_3 CMPX_{it} + \beta_4 PRF_{it} + \beta_5 IFRS_{it} + \beta_6 BIG_{it} + U_{it}
\]

where:
- \(\ln AF\) = natural log of audit fees measured by the total amount paid by firm in an accounting period;
- \(\ln FSZ\) = firm size measured by the natural log of total assets;
- \(RSK\) = audit risk measured by the ratio of debt to assets, \(CMPX\) = auditee's complexity measured by the ratio of receivables to total assets.

However, the model was modified to adapt to the purpose of this study. The reason for the modification was to include profitability which is one of the micro determinants of audit fees. Also, variables such as Big 4 and IFRS were also added as control variables. Both control variables were added as a result of their impact on audit fees as evidently proven in previous research works. Few of these works are authored by De George et al. (2013), Goncharov et al., (2012), Soyemi and Olowookere (2013), and Gonthier-Besacier and Schatt (2007).

Thus the model is presented as follows:

\[
\ln AF_{it} = \beta_0 + \beta_1 \ln FSZ_{it} + \beta_2 RSK_{it} + \beta_3 CMPX_{it} + \beta_4 PRF_{it} + \beta_5 IFRS_{it} + \beta_6 BIG_{it} + U_{it}
\]

where:
- \(\ln AF\) = natural log of audit fees measured by the total amount paid by a firm in an accounting period;
- \(FSZ\) = natural log of auditee size measured using the total assets;
- \(RSK\) = auditee risk measured using the ratio of debt to total assets;
- \(CMPX\) = auditee complexity measured using the ratio of receivables to total assets;
- \(PRF\) = auditee profitability measured by return on assets;
- \(BIG\) = dummy variable using the value of 0 to represent pre-transition period and 1 if otherwise;
- \(IFRS\) = dummy variable using the value of 1 if the audit is done by Big 4 firms and 0 if otherwise;
- \(\beta_0\) = intercept parameter;
- \(\beta_1\) --- \(\beta_6\) = slope parameters;
- \(U_{it}\) = stochastic error terms;
- \(\beta\) = cross sectional differences.

This study expected a direct association between size, profitability, complexity, IFRS, Big 4 and audit fees while an inverse relationship is expected between risk and audit fee. Some of the variables (such as audit fee, firm size) are stated in their log form due to their nonlinearity.

Static panel data regression analysis which consists of pooled OLS, fixed effect and random effect was used to establish the relationship between the regressand (audit fees) and the regressors (size, risk, complexity, profitability, IFRS and Big 4).
4. DATA PRESENTATION AND DISCUSSION OF RESULTS

4.1. Descriptive statistics

The descriptive statistics of all the variables of the model are reported in Table 1 which shows the number of observation mean, standard deviation, minimum and maximum values of the explained variable (natural log of audit fee) and each of the explanatory variables (size, risk, complexity, profitability, IFRS and Big 4) used in this study. The measure of dispersion of the model variables are measured by the values of standard deviation as shown in Table 1.

Table 1. Summary of descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Observation</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit fee</td>
<td>120</td>
<td>9.72</td>
<td>11.44</td>
<td>7.44</td>
<td>16.06</td>
</tr>
<tr>
<td>Size</td>
<td>120</td>
<td>16.84</td>
<td>21.10</td>
<td>11.13</td>
<td>19.71</td>
</tr>
<tr>
<td>Risk</td>
<td>120</td>
<td>0.50</td>
<td>1.04</td>
<td>0.02</td>
<td>9.01</td>
</tr>
<tr>
<td>Complexity</td>
<td>120</td>
<td>2.00</td>
<td>0.24</td>
<td>0.12</td>
<td>1.89</td>
</tr>
<tr>
<td>Profitability</td>
<td>120</td>
<td>0.11</td>
<td>0.40</td>
<td>-1.22</td>
<td>2.28</td>
</tr>
<tr>
<td>IFRS</td>
<td>120</td>
<td>0.23</td>
<td>0.44</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Big 4</td>
<td>120</td>
<td>0.63</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Author’s computation (2019).

The result in Table 1 revealed that audit fee (measured by the total amount paid by firms in an accounting period) ranges from ₦ 7.44 billion to ₦ 16.06 billion. It has a mean of ₦ 9.72 billion showing the deviation of ₦ 1.14 billion from its mean value. This indication is that firms in the consumer goods sector of Nigerian stock exchange paid ₦ 9.72 billion audit fee on the average from its total income. However, as indicated in Table 1, the overall average of total assets of consumer good firms was ₦ 16.84 billion ranging from ₦ 11.13 billion to ₦ 19.71 billion with the deviation of ₦ 2.10 billion from the mean.

Auditee risk, which was measured by the ratio of debt to total asset ranged from a minimum of 0.02% to a maximum of 9.01%, it has a mean of 0.50% with a deviation of 1.04% from its mean value. Furthermore, IFRS and Big 4 demonstrated the onlooker value of 0.12% with a standard deviation of 0.40 over the period under study while it ranged from -1.22% to 2.28%. Moreover, IFRS and Big 4 demonstrated minimum values of 0 and a maximum value of 1 with a mean value of 0.23 and 0.63, showing 0.44 and 0.49 deviations from its mean value.

4.2. Testing for multicollinearity

Variance Inflation Factor (VIF) was used to test for multicollinearity among the independent variables. This is necessary because OLS regression technique assumes the absence of multicollinearity among the independent variables to expect a high level of accuracy from the estimator.

Table 2. Variance inflation factor

<table>
<thead>
<tr>
<th>Variables</th>
<th>VIF</th>
<th>I/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>Risk</td>
<td>1.58</td>
<td>0.63</td>
</tr>
<tr>
<td>Complexity</td>
<td>1.49</td>
<td>0.67</td>
</tr>
<tr>
<td>Profitability</td>
<td>1.44</td>
<td>0.70</td>
</tr>
<tr>
<td>IFRS</td>
<td>1.13</td>
<td>0.75</td>
</tr>
<tr>
<td>Big 4</td>
<td>1.06</td>
<td>0.94</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.47</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s computation (2019).

Table 2 shows the VIF and its inverse (also called tolerance) for all the independent variables. By rule of thumb, any variable whose VIF is greater than 10% highly collinear and vice-versa. From Table 2, all the variables have VIF that are less than 10 which implied they are not collinear. Gujarati (2009) opines that the closer the value of VIF to zero, the greater the degree of multicollinearity and vice versa. In Table 2, all the variables are above 50% meaning that they are closer to one than zero. All these justified that the model does not suffer from the problem of multicollinearity.

4.3. Model estimation selection

The Breusch-Pagan LM Test for random effect produces a chi-square of 13.94 with p-value of 0.0001, thus rejecting the hypothesis that says the variance of the random effect is zero, implying that pooled OLS model is not appropriate for the model. The Hausman test produced a chi-square of 23.55 with a p-value of 0.001 which indicated that the null hypothesis is strongly rejected. This implied that the random effect model does not produce a better and consistent estimate than the fixed effect model, thus the only estimate from the fixed effect model is interpreted to explain the impact of firms’ specific characteristics on audit fees of quoted consumer goods firms in Nigeria.

Table 3. Fixed-effect model result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Fixed effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>10.29 (0.002)*</td>
</tr>
<tr>
<td>Auditee size</td>
<td>0.03 (0.004)**</td>
</tr>
<tr>
<td>Auditee complexity</td>
<td>-0.04 (0.073)**</td>
</tr>
<tr>
<td>Auditee profitability</td>
<td>0.21 (0.635)</td>
</tr>
<tr>
<td>IFRS</td>
<td>0.002 (0.014)**</td>
</tr>
<tr>
<td>Big 4</td>
<td>0.71 (0.664)</td>
</tr>
</tbody>
</table>

Model statistics:
- $R^2$ (within) 0.1165
- F stat. 2.64(0.0278)**

Notes: *, ** and *** denote statistically significant at 1%, 5% and 10% respectively. P-values are reported in parentheses.

Table 3 shows the linear relationship between firms’ specific characteristics and audit fees of quoted consumer goods firms in Nigeria, with the use of panel regression analysis. The table shows the result of fixed-effects regression analysis.

In terms of the significance and sign, it can be seen that auditee company size, IFRS and auditee risk concur with a priori expectation with a positive sign for auditee size and IFRS. This implied that...
there is a direct relationship between auditee size, IFRS and audit fees, and negative sign for auditee risk and auditee profitability. This revealed that there is an inverse relationship between auditee risk, auditee profitability and audit fees.

In terms of the magnitude of the coefficient, four variables: auditee size, auditee risk, auditee profitability and IFRS adoption have a significant effect on audit fees of quoted consumer goods firms in Nigeria as indicated by coefficients (0.050, -0.044, -0.085 and 0.002) with probability values (0.044, 0.071, 0.034 and 0.014) at 5%, 10% and 5% significance level respectively. This means that if there is an 1% increase (decrease) in auditee size, it will induce a 0.05% increase (decrease) in audit fees. Also, if there is an 1 decrease (increase) in auditee risk, it will induce 4.46% increase (decrease) in audit fees. Thirdly, if there is an 1 decrease (increase) in auditee profitability, it will induce 5.58% increase (decrease) in audit fees. Finally, IFRS behaves the same way auditee size behaves as the adoption of IFRS induces a 0.24% increase in audit fees.

But auditee complexity and Big 4 do not have a significant effect on audit fees as indicated by coefficients (0.214 and 0.706) with probability values (0.635 and 0.664) respectively at a 5% level of significance.

4.4. Discussion of findings

The first null hypothesis was that auditee size does not have a significant impact on the audit fee of quoted consumer goods firms in Nigeria. At a 5% level of significance, this study found that auditee size has a significant impact on audit fees. Therefore, the null hypothesis is debunked. The result of this study is in line with Hossain et al. (2017), Kimeli (2016), UHaq and Leghari (2015) and Soyemi and Olowookere (2013) who suggest that auditee size has a direct impact on audit fees. This may be a result of more time used by the auditor to investigate the transactions and financial statement of large firms.

The second null hypothesis was that auditee profitability does not have a significant impact on the audit fee of quoted consumer goods firms in Nigeria. At a 5% level of significance, this study found that auditee profitability has a significant impact on audit fees. Therefore, the null hypothesis is rejected. This study does not concur with the finding of Apadore and Letchumanan (2016); De George et al. (2013), but in support of Kiptum (2013) who opined that auditee profitability has an inverse association with audit fees. This may arise as a result of lower profit firms controlling overhead, which will reduce internal control and engenders audit control.

The third null hypothesis was that the auditee ratio of receivables to the total asset which is the proxy for complexity does not have a significant impact on the audit fee of quoted consumer goods firms in Nigeria. At a 10% level of significance, this study found that auditee complexity has no significant impact on audit fees. Therefore, the null hypothesis is accredited. This finding differs to some extent to those of Davidson, (2015), Cameran, (2005), Antle et al. (2006) who suggested that auditee complexity has a positive impact on audit fees.

The fourth null hypothesis was that the auditee ratio of debt to the total asset which is the proxy for risk does not have a significant impact on the audit fee of quoted consumer good firms in Nigeria. At a 10% level of significance, this study found that auditee risk has a significant impact on audit fees. Therefore, the null hypothesis is discredited. This finding differs to some extent to those of Ling et al. (2013) and Ask and Holm (2013) who suggested that auditee risk has a positive impact on audit fees but the corroborated prior result of Sonu et al. (2017) and Xiwang (2016). This indicated that auditors do not put more effort to decrease litigation. A rationale for this could be that in Nigeria rules and regulations are not strictly enforced and uncompromising like developed countries which may give room for manipulation of accounting figures. This finding also is contrary to the agency theory which assumes that an increase in agency cost will increase the need to hire the service of Big 4 companies, thereby increasing audit fees.

5. CONCLUSION AND RECOMMENDATIONS

This study revealed certain information that shed more light on the impact of firm-specific factors on audit fees of quoted consumer good firms in Nigeria. Based on the findings, this study concluded that audit fees are affected by firm-specific factors in Nigeria quoted consumer good firms. This means that a change in audit fees is caused by a change in the firm’s specific factors. Also, this study concluded that the adoption of IFRS in 2012 by all public quoted firms in Nigeria affected audit fees significantly. This study provides a back drop on how firms maximize audit benefit through monitoring of specific factors and their impact on audit fees. Academically, this study contributes to the development of audit accounting since it enlarges the knowledge of audit fee determinants; hence it serves as a foundation for further studies regarding audit fees. The inability of this study to cover other firms in non-financial sectors and the financial sector serves as a constraint to this work. Also, not controlling for the effect of other variables like auditor size and period of financial year-end limited this study.

In line with the findings of the study, it is recommended that companies should implement a corporate governance framework of rules and practices by which the board of directors ensures accountability, fairness, and transparency in the consumer goods sector since profitability behave negatively with audit fees. This will guarantee adequate shareholder protection, effective audit committees and adequate board monitoring. Also, accounting professional bodies, such as ICAN and ANAN should put in place measures that will ensure conformity with laws, regulations and technical standards; this will enforce auditors to take company risk into consideration when accepting audit engagements.
REFERENCES