

Examination of the Determinants Audit Fees on JSE Listed Companies in South Africa

Doorasamym@ukzn.ac.za
*School of Accounting, Economics and Finance,
University of KwaZulu-Natal, South Africa*

Mathew Ekundayo Rotimi
*Department of Economics, Federal University Lokoja,
Felele, Lokoja, Kogi State, Nigeria
drmathewrotimi@gmail.com*

Memory YeukaiChivariro
*School of Accounting, Economics and Finance,
University of KwaZulu-Natal, South Africa
memoeryyeukai@gmail.com*

Abstract

There is absence of conclusive information and results on audit fees determining factors, thus, making decision and negotiation relating to audit fee difficult between the auditors and auditees. While a few studies on the subject matter are carried out with focus on the developed countries, the literature reveals that the most recent study in this context carried out in 2015 prior the covid-19 pandemic might have been outdated due to various changes that have taken place in the audit market. Consequently, this study examined the determinants of audit fees on Johannesburg Stock Exchange (JSE) listed companies in South Africa. The study used audit firm size (big4), auditee size and auditee profitability as independent variables, and audit fees as dependent variable. Data covering 2016 to 2020 was obtained from IRESS research domain. The study employed a quantitative technique of analysis using SPSS 27.0 version. Three regression models were used in the study, and they revealed that auditee and auditor sizes were statistically significant variables to determine audit fees. On the other hand, profitability was not statistically significant to determine audit fees. The study concludes that audit fees determinants have the same impact in both financial and non-financial companies irrespective of differences in their asset structures. This study recommends the sizes of auditor and auditee as necessary factors to be considered when negotiating for audit fees.

Keywords: Asset Size, Invrec, Client profitability, Big4, Audit fee premiums

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I. Introduction

Audit fees mean the payment made by company to auditor for accomplishing audit service (El-Gammal, 2012). Generally, the fee is stated at the commencement of the auditing process, grounded on the agreement of audit firms and auditees. Costs incurred during audit service and the profits are covered as part of the audit fees (El-Gammal, 2012). Kikhia (2015) explained the challenges auditors and auditees face in determining the audit fee that is equally agreeable for both parties. The auditors will perceive the audit fees as inadequate for their services, while auditees will perceive the audit fees as too expensive, leading to the rise of misunderstanding among them (Kikhia, 2015). However, efforts to reconcile the push and pull, and misunderstanding remains inconclusive.

How auditors determine the audit fees is an important question that needs to be answered through empirical evidence and the development of the audit fees determination models (Shan, Troshani, & Tarca, 2019). Several studies on the examination of the determinants of audit fees were conducted (Van Caneghem, 2010). Many of these previous studies, which were done globally, were activated by alarms about the presence of rivalry amid the auditors and the accusations that the big4 audit firms were manipulating the market with selfish pricing systems. The observations were about the biased audit pricing where abnormal profits were being realized by charging high audit fees, which caused deterioration of the audit quality (Joubert, 2006). Asthana,

Khurana, and Raman (2019) clarified that the big4 audit firms use their power of domination to charge exorbitant prices while providing poor audit services quality.

There are several studies covering the topic of audit pricing and its determinants, but mainly the most significant number of these investigations tend to focus on developed countries. The emerging countries have a limited number of such studies (Kim, Simunic, Stein, & Yi, 2011). Nonetheless, believing that the conclusions in the developed countries in respect of audit fee determinants can be taken as being accurately similar in the emerging economies will be deceiving. This is because the audit atmosphere varies substantially in these economies (Kim et al., 2011).

There have been sequences of corporate financial scandals, including the downfall of prominent organizations like Eron and WorldCom, in 2001 and 2002 (Petra & Spieler, 2020). The failure of Carillion Construction Company, the UK's second-largest company, which buckled under the weight of a whopping £1.5 billion debt (Hajikazemi, Aaltonen, Ahola, Aarseth, & Andersen, 2020). Royal Ahold scandal where the company was accused of \$700m fraud (Langendijk, 2012). These are some of the reasons that caused so many allegations and lawsuits to the auditing industry. Auditors failed to meet society's expectations, which led to a decline in confidence in the audit function (Ratzinger-Sakel, Audoussert-Coulier, Kettunen, & Lesage, 2013). An anticipation gap has been determined in the audit function. Those who use the audit report are deeply anxious about this issue and have excellent prospects concerning the auditor part for fraud exposure (Akther & Xu, 2020).

According to Sewpersadh, (2019), despite high audit prices being charged by the big4 auditing firms in South Africa, there have been several audit failures where there was a failure to perceive the loopholes. Some of these scandals include the Deloitte scandal, where it has been interrogated regarding its relationship with Steinhoff international which collapsed due to unethical behaviour of the top executive where the assets and the profits of the company were inflated by R250 billion (Maroun & Cerbone, 2020). KPMG was also questioned after being suspected of helping the Gupta family in tax evasion and corruption. There was also severe misconduct by certain KPMG partners and VBS mutual bank, which was uncovered, and these scandals have led to the exodus of KPMG significant clients such as Absa, Sasfin, and DRDGold (Maroun & Cerbone, 2020). Furthermore, Tesco inflated its profits by more than £250 million when income acknowledgment anomalies were identified in its semi-annual outcomes (Tse, Zhang, Doherty, Chappell, & Garnett, 2016). Maroun and Cerbone (2020) mentioned that other South African corporate governance issues comprise Leisure Net, Saambou, Regal Treasury Private Bank, Masterbond, and MacMed.

Despite all these South African corporate governance scandals, there are only a few local studies about audit fees determinants that were done in South Africa (Davidson, 2015; Firer & Swartz, 2007; Simon, 1995). For this reason, this study will mainly focus on the determinant factors of audit fees on South African companies listed on JSE. This study looks at the crucial factors that affect audit pricing strategies and discloses their positive and negative effects. The study will help to broaden this area of research since it is not the first study done both locally and internationally. The author used a samples size of financial companies and non-financial companies to observe if the chosen independent variables have the same impact in determining audit fees on both the financial companies and non-financial companies listed on JSE since they have different fee structures.

II. Literature Review

This section reviews various literature related to the study. Specifically, it reviews empirical and theoretical issues on audit fees.

2.1 Empirical Review

2.1.1 Factors Determining Audit Fees

2.1.1.1 Audit Firm Size

Auditor size is a vital factor to determine audit fees, among other elements. Factors such as auditor's market share, its assets, and the number of employees employed are usually used as measuring tools of the size of an auditor (Naser & Hassan, 2016). Eilifsen and Knivfla (2016) enlightened that audit services of high quality relate to the international big audit firms, which in turn will charge high audit fees for their services. Likewise, a positive correlation between audit fees and audit firm size was found by El-Gammal (2012) and Hossain & Sobhan (2019). They mentioned on the big4 audit firms obtaining audit fee premium in several countries due to their financial strength, expertise, reputation, and investment in the marketing of their audit services.

According to Cahan and Sun (2015), big4 auditors charge high audit fees because they team with higher qualifications. These experienced and more focused experts offer high quality of audit service comparing them with non-experience small audit firms which are not big4 auditors. Due to the prestige, reputation, and market power carried by the big4, organizations are eager to pay high audit fees or premiums for their services not looking at how excellent their works are (Pratoomsuwan, 2017).

Kanakriyah (2020) stated that investment in reputation and marketing calls for a greater amount of audit fees to auditees. Ittonen, Sormunen, and Tronnes (2019) also enlightened that the monopolistic power of the big4 is the cause of high audit fees which are being charged by the big4 in the audit market for their audit services. There are some studies which were done that provide evidence about the audit fee premium which is being highly imposed by big4 audit firms, in the United States of America (Seetharaman, Gul, & Lynn, 2002), in Hong Kong (Sandra & Patrick, 1996), in Bangladesh (Karim & Moizer, 1996), in Lebanon (El-Gammal, 2012), and in France (Choi, Kim, Liu, & Simunic, 2008). However, Langendijk (2012) did not find any large firm audit fee premium in Malaysia and Netherlands.

Giroux and Jones (2007) found out that the big4 were not charging audit fee premiums in Wales, but auditors were charging the audit fees lower than the standard audit prices which other firms were charging within the market. In United States Simunic (1980) found no evidence of audit fee premium. Carson, Carson, Gil, and Baucom (2007), also found out that Big4 audit firms were offering high-quality audit services and charging lower audit fees due to competition amongst big4 audit firms and usage of refined methodologies.

Simon (1995) and Davidson (2015) did not find any audit fee premium in South Africa, while the study done by Firer & Swartz, (2007) found that the premium fees existed amongst the big4 audit firms within the New South African audit market. Although there is evidence of the audit fee premium from the previous study, none of the former research in South Africa has found audit fee discounts on the audit performed by large audit firms. Furthermore, Simon (1995) explained the high audit fees associated with industry specialization, product differentiation, and name development. This is due to the costs of the efforts invested by these big audit firms, which later attract audit fee premiums.

Griffin, Lont, and Sun (2008) also discovered that larger audit firms were charging high audit prices being justified by the audit quality in the New Zealand market. Additional evidence from Australian research found out that the big audit firms were charging high audit fees 30% more (Boon, Crowe, McKinnon, & Ross, 2005).

There are empirical evidence holding that, other things held constant, big audit firms are expected to charge higher audit fees compared with their small audit firms (Jha & Chen, 2015). Buttressing this, Cohn, Engelmann, Fehr, and Maréchal (2015) found evidence of audit quality perception in the USA, and it was significant. In addition, Jha and Chen (2015) explained that it is anticipated for audit price and auditor size to be associated when there is an existence of differentiated demand and the absence of economies of scale. The big audit firm's ability to audit with experts and good implementation of standard audit methodology, usage of advanced technologies, and the presence of good infrastructure results in high pricing of audit services (Jha & Chen, 2015).

Van Caneghem (2010) explained that large auditees usually prefer to be audited by the more prominent auditors. This pairing can cause small auditees not to charge large competitive amounts of audit fees to their clients for the audit service done as compared to the big audit firms.

2.1.1.2 Auditee Size

From previous studies, the size of an auditee was reported as significantly an essential aspect in determining audit fees because it affects audit plans on both the auditee and the auditor (Kikhia, 2015). Though the size of the client can be used as a measurement of complexity, it is not the only measure of complexity (Cameran, 2005). They are different factors that are used when measuring the size of an auditee which include the number of employees, profitability, sales turnover, and total assets (Kikhia, 2015). The variables which were used extensively to measure auditee size were total sales (Gunn et al., 2019; Joshi et al., 2014; Kikhia, 2015), total assets (Joshi et al., 2014), and market capitalization (Naser & Hassan, 2016). Kanakriyah (2020) explained that shareholders' equity, net profit, total assets, turnover, and gross are the elements from the financial statement that can measure the size of an auditee.

Total auditee assets used in measuring the auditee size were significant in a study in Britain (Chan, Ezzamel, and Gwilliam, 1993). In Swanson (2008) done in the United States of America, total assets were used to represent the size of an auditee. This study used the asset size and Invrec. Invrec is the proportion of audit size fractioned by inventory and receivables. The auditing process is very long when the auditee is big than when the auditee is small. Big clients attract high audit fees compared to small clients because of the time spent by auditors doing the audit services (Hossain & Sobhan, 2019). Therefore, there is a positive correlation that exists between the auditee size and audit fees (Kikhia, 2015; Naser & Hassan, 2016; Simunic, 1980).

Amongst the agency costs components is monitoring costs which are the expenses experienced by the company's stockholders to track the management's actions (Jensen & Meckling, 1976). The monitoring costs include auditing costs because auditors play a vital role in the inspection of the organizational financial statements and ensuring that the behaviour of the managers is according to the expectation of the shareholders as the firm size increases. The expectation is that when an organization is large, it becomes more time-consuming to review its financial statements. There is a need for regular inspection of financial accounts to scrutinize the

activities of the managers, which in turn increases the audit fees (Agoglia et al., 2015). This leads to the conclusion that when the organization's size is big, quality auditors are engaged to charge premiums and increase the audit costs (Agoglia et al., 2015).

When Francis and Wilson (1988) analysed the agency costs looking at audit choice and client size, they concluded that the demand for the big audit firms could not be explained by either the size of the auditee or the agency costs. On the other hand, the research by Nasser, Wahid, Nazri, and Hudaib (2006) observed that large auditees are more likely to choose larger and well-known auditors to perform their audit service. Mohammed and Saeed (2018) explained that selecting a measure of auditee size is a challenge because there are inadequate procedures on the suitable measurement of auditee size. The previous studies on audit fees determination display an absence of harmony on the appropriate measure of auditee size. Simunic (1980) explained that since the audit process has been approached traditionally through the balance sheet, total assets are more reliable to measure the auditee size. (SAICA 2018) explained that sales and total assets are the more appropriate indicators to measure the auditee size compared to net profit.

Using the client's assets to measure its size has a problem because of the variances in the presence of off-balance-sheet assets, depreciation, and accounting policies which causes the measurements of assets to be different even if the companies are alike (Cameran & Perotti, 2014). Aikala (2018) explained that some things could not be recognized as part of the total assets, such as the operational leases. Buttressing this claim, De George, Ferguson, and Spear (2013) noted that associated account balances and transactions might encompass difficulty segments on the audit due to the complex disclosure requirements surrounding these transactions. Moreover, Zhang, Amin, and Deis (2021) explained that property, Plant, and Equipment could overstate the asset base if they can be revalued, and this will increase the complexity of the audit client. Therefore, high audit fees will result because the audit will need more experts. The assets structure of the auditee enhances additional difficulties. Suppose the company has a compromised assets base. In that case, this will lead to more audit work due to different audit complex evaluation approaches required, and high audit fees will be needed for hiring experts for the complex audit service (Zhang et al., 2021).

According to Zhang et al. (2021), overvaluing receivables and inventories may cause inherent risk, so these valuation issues of the inventory and receivables will require more audit efforts to verify if they are correctly valued. The more specialized the inventory is, the more complex it becomes in determining the net realizable value due to expenses, labor, and raw materials needed to produce the finished goods from the raw materials (Zhang et al., 2021).

The study used asset size and invrec (Inventory and receivables) as the measures of the auditee size. The expectation of this research is for the auditee size variable to be statistically significant. The expectation is that audit size should be very important in determining the audit fees. Meaning that as the audit size increases, there should also be an increase in audit fees charged by the auditors due to the high amount of time and lot of effort needed to do the audit services. The hypothesis is auditee size is positively correlated with audit fees.

2.1.1.3 Auditee Profitability

Management performance, efficient use of assets, and the ability to allocate the resources efficiently in the company's operations are measured by the company's profitability (El-Gammal, 2012). The profitability of a company can be expressed using various profitability ratios, which include Return on Equity, Return on Investment, Return on Capital Employed, and Return on Assets (Firer & Swartz, 2007; Naser & Hassan, 2016). Joshi et al. (2014) explained that high return on assets is generally produced by efficient use of resources. They continued and illustrated that when the profit is high, there is a tendency by the stakeholders to minimize the agency costs since profit will be a sign of accomplishment. On the other hand, auditors have a tendency to execute serious audits for them to validate the management proclamations on their profitability which requires more time and leads to high audit pricing (Gunn et al., 2019).

Low profitability can be related to high audit work due to financial pressure in authenticating the value of the client assets and checking the business's stability and life span (Swanson, 2008). The results and evidence in regard to this are inconclusive, while El-Gammal (2012) and Joshi et al. (2014) revealed a positive connection between audit fees and the organization's profitability.

The financial position of an organization or the profitability of the auditee can be connected to a business risk through the going concern difficulties (Gianfelici, Benyoussef, & Savioli, 2021). Some of the indicators or forecasters of the going concern challenges that the client might face include profitability, liquidity, and gearing ratios (Gianfelici et al., 2021). An organization with lower profitability has a high chance of having going concern difficulties, increasing audit risk. Due to that reason, the auditors will require more time to look for additional indications concerning the recoverability of assets and assess the auditee's going concern (Gianfelici et al., 2021). Kraub, Pronobis, and Zülch (2015) explained that low audit fees are associated with loss-making companies even though they pose a high risk to the auditor due to the unpredictability over the collection of the fees for the audit service performed. High-risk auditees might choose lower quality auditors

that charge lower audit fees per hour because of the company's uncertainty increases. The prices of the audit service from high-quality audit firms also increase as the risk of the auditee increases to cover for audit risk (Kraub, 2015). Jha and Chen (2015) also found the loss as an essential variable in determining the audit fee.

2.1.1.4 Financial Companies

Financial companies also referred to as financial services consists of insurance companies, investment companies, and banks. Financial companies present different audit difficulties and have extra complex assets structures than non-financial companies (Firer & Swartz, 2007). Consequently, the complexity of the assets structure of the financial companies results in high-quality audit work that should be performed, resulting in high audit fees for audit services (Karim & Moizer, 1996). In the research done by Simonand Taylor (2002), it was discovered that high audit fees were being charged to non-financial companies compared to financial companies.

Karim and Moizer (1996) argued that audits of financial companies are very easy compared to non-financial companies. This is because financial companies typically have simpler asset structures than non-financial companies. Financial companies keep little or no stock as compared to non-financial companies. Non-financial companies such as manufacturing usually have a lot of plants and equipment's as compared to financial companies. They explained that for this reason, audits of financial companies are cheaper as compared to non-financial companies.

However, Hossain and Sobhan (2019) explained that financial companies have a tendency of having many offices, which therefore have more elements needing an audit service. Given these above contradicting estimates. It is problematic to estimate whether financial companies have higher or lower audit fees.

2.2 Theoretical Review

Two related audit theories are discussed in this study. They are agency and monopoly theories.

2.2.1 Agency Theory

One of the accounting theories which has remained extensively researched is the Agency theory which encompasses agreements between agents (directors/managers) and Principals (shareholder/owners) (Jensen & Meckling, 1976). The contract between the principals to engage in day-to-day administrative activities in the organization and make some organizational decisions is defined as the agency relationship (Jensen & Meckling, 1976). The owners of the organization suffer the monitoring costs to reduce the agents' conflicting actions and in turn maximize their interests (Jensen & Meckling, 1976). Vitolla, Raimo, & Rubino, 2020 explains how audit fees remain a vital portion of these monitoring costs because the duties of auditors are to guarantee that agents are performing in line with the interest of the organization owners (principals), while they likewise should conduct an audit in agreement with legislative requirements.

According to Jensen and Meckling (1976), investors or principals own the organization by virtue of the capital which they have invested in the organization. The study argued that the investors appoint agents (managers or directors) to manage the business's day-to-day operations since they have little influence on the company's day-to-day operations. The designated agents will be acting for their benefit and increase the risk of not achieving the interests of the shareholders (Jensen & Meckling, 1976). Nevertheless, appropriate controlling instruments of defending the welfares of the principals and persuading the managers to increase investors' yields even when they are conflicting with the manager's self-interest will be put in place by the principals (Jensen & Meckling, 1976).

According to Bosse & Phillips (2016), they are three elements or components of the agency theory: agency costs, bonding costs, and residual costs. Among the agency costs component is monitoring costs, which are the cost incurred by the company's shareholders to monitor or track the management's action. The expectation is that the agency costs are high when the auditors need more time and when there is a need for regular examination of financial accounts to see the activities of the managers (Agoglia, Hatfield, & Lambert, 2015). When the organization is highly owned by its management, the agency costs become lower because their interest will tend to match the interests of the shareholders (Nelson & Mohamed-Rusdi, 2015). Jensen (1986) also supported the point and explained that when the shareholders highly own the organization, the agency costs are lower. Subsequently, the assumption is that when the organization has lower manager ownership, the agency cost, including audit fees, is higher than the organization that has high ownership of management (Bosse & Phillips, 2016).

Jensen and Meckling (1976) and Jensen (1986) explains that organizations that have higher free cash flows (FCF) are associated with higher agency costs because they are higher chances that managers can misuse the funds of the organization due to huge cash investments because they have an extra choice on where to use the money. This will cause the managers to use these reserves on externalities, being in their benefit and against the welfares of stakeholders. Auditors are then engaged and monitor if the managers are acting in the interests of the organization and the shareholders. Hence, the assumption is that the correlation between audit fees and free

cash flow is positive (Pepper & Barlow, 2019). Jensen (1986) explained that usually, the free cash flow of an auditee is affected by its profitability. The higher free cash flows are generally associated with high profits, and low free cash flows are generally associated with low profits or losses. In this research, the study has used profitability as a measure of free cash flow. The higher the profitability, the higher the free cash flow. From the results of this research, it was discovered that the increase or decrease of auditee profitability (free-cash-flow) had no effects on audit fee determination in the South African audit market from the year 2016 to the year 2020. Paniagua, Rivelles, & Sapena (2018) found that companies with low conflicts between the agents and the principals are likely to have audits that are not expensive.

2.2.2 Monopoly Theory

Noticeably, it is expected that lower audit quality and higher audit pricing relate to lower competition in the audit market. This perception might not always be accurate because some of the big audit firms can produce economies of scale, and therefore audit costs and audit fees will tend to be reduced (Huang, Chang, & Chiou, 2016). Gerakos and Syverson (2015) buttressed the claim that high audit fees and lower audit quality relate to lower market competition. In a monopolistic audit market, entry barriers are considerably higher for the auditors who want to enter the market. Although small auditors try to compete with the big4 audit firms, they can be outpowered within a short period through the price competition by the big4 audit firms (Van Linden & Hardies, 2018).

Audit market concentration in many countries in the world was increased by the mergers of several big audit firms from big8 to big4. The dominance of big audit firms in the audit market grew in 2001 when Arthur Anderson collapsed, and the big5 audit firms became the big4 (Francis, Michas, & Seavey, 2013). Precisely, Gunn, Kawada, and Michas (2019) claim that alliance works together to increase individual and joint profits by charging higher audit fees due to increased market concentration. This opinion is constant with the results found by Choi, Kim, Lee, and Sunwoo (2017), where it was observed that auditors could charge high audit fees as a way of exercising their market power. Kitto (2021) explains that it is common sense that insufficient rivalry within the audit market may result in high audit fees being charged, but no clarity was made on when prices charged by the big4 may become too extreme. Audit clients commonly agree with the opinion that since the collapse of Arthur Andersen, the big4 audit firms have gained the dominant audit market power due to alleged lack of auditor competition. For this reason, the audit clients support that the regulations should interfere for the big audit firms to charge fair amounts of audit fees (Francis et al., 2013).

III. Research Methodology

This section presents the methodology of the study. The hypothesis bases of this research are the existence of the positive correlation of audit fees (dependant variable) and the selected independent variables (audit firm size, auditee profitability, and auditee size). This research adopts Simon (1995), Firer and Swartz (2007), and Davidson (2015) as the basis of the research approach taken because they are the pioneering studies that were done in South Africa before this research. These three foundational studies aimed to see the effects of audit fee determinant factors in the South African audit market.

2.3 Defining the target population

The entire group of items that have the same characteristics is defined as targeted population. The sample size of the study is calculated from the entire population, following Creswell & Creswell (2003). The targeted population used was all South African JSE listed companies from 1 January 2016 to 31 December 2020. The choice of data point is dictated by data availability.

2.4 Determining the sample size

The sample size in this research was determined by the confidence interval approach, which applies the concept of variability, sampling distribution, and standard error of the mean. This procedure follows Taherdoost (2017) who suggested that sample size should be optimum and must be obtained by the scientific method.

Following Taherdoost (2017), the sample size is obtained using the formula:

$$n = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N}\right)}$$
$$n = \frac{\frac{1.96^2 \times 0.5(1-0.5)}{0.04^2}}{1 + \left(\frac{1.96^2 \times 0.5(1-0.5)}{0.04^2 (403)}\right)}$$
$$= 241$$

Where:

n= Sample size

N= Population size

P=Percentage/ proportion picking a choice

e=Sampling error / margin of error

Z= Z-Score associated with the confidence level

A sample size of 241 observations or companies was obtained. The formula included a total population size of 403, a sampling error of 4%, and a confidence level of 95%. Initially, the sample size for this research was 1205 (241 per year multiplied by five years from 2016 to 2020) observations (companies). This sample size of 1205 included both financial companies and non-financial companies. The study came out with the final sample size from the initial sample size. The initial sample was 241 observations/companies per year and 1205 observations for 5 years (241 multiplied by 5 years). The final sample size is 189 observations per year and 945 observations for 5 years (189 multiplied by 5 years). The final sample size was obtained after the subtraction of companies that were part of the sample and had issues such as not displaying inventory, not displaying any information, not displaying ROA, not displaying audit fees, and not displaying receivables. The study removed these companies from the calculated sample and only included companies with the complete required data for the research.

2.5 *Types and sources of data*

JSE listed companies' financial statements were used to collect quantitative data for the financial years 2016 to 2020. The study relies on quantitative data because data obtained from JSE are expressed in quantitative forms. The study used the secondary data from the IRESS research domain, which offers the financial information of JSE listed companies. This database was chosen for data collection because it was easy to access, and the data was readily available. The other reason this database was chosen is because it is free to access since it is a university-subscribed database. Collecting the data from the IRESS research domain was time-saving to the study and has helped the study to remain anonymous during the time of the study. Due to the readily available data, a large amount of data over the period of five years from 2016 to 2020 was collected, resulting in more accurate data collection and promoted the results of this research to be statistically significant as specified in the study done by Firer and Swartz (2007).

2.6 *Data analysis techniques*

Data analysis involves evaluating, summarizing, applying statistical analysis, and reducing the collected data into manageable sizes (Hair, Anderson, Babin, & Black, 2010). The research questions were answered by classifying, well-ordering, manipulating, and summarizing the data to answer the research questions.

The correlation amongst variables was determined by the linear regression techniques. The study found it suitable to use multiple regression models because of the numerous variables which were tested in this research. This is because the multiple regression models allow multiple variables to be part of the models. Multiple regression models help to predict the extent of variances of independent variables on dependent variables. Therefore, these basic regression models serve as a valuable standard for evaluating the likenesses and variances in the effects of independent variables on dependant variable in the South African audit market and the international audit market.

2.7 *Reliability and validity*

According to Creswell & Creswell (2003), it is very important for a study to use a research instrument that can show the validity and the reliability of the research results of the model used in the study. Aside the R-squared, this study considers the F test and level of significance usually found in ANOVA R^2 to determine the validity and reliability of the model. The values of R^2 fall between 0 and 1. The bigger the R^2 the greater the internal validity of the model. The F test or F statistic explains the explanatory power of the regression model. When the F test of the model is below (sig=0.05), it is statistically significant, which means there is very strong evidence that the model has explanatory power.

2.8 *Descriptive statistics*

Different descriptive statistics such as the mean, which is used to measure the central tendency, standard deviation, which measures variability or dispersion, the maximum and the minimum values, and the number of observations were used in this study to explain the data set and understand the details of the sample.

2.9 *Panel data method*

Considering the multiple years in which the data was obtained in this research, the panel data method was used. To the individuality of every year, the study included a dummy variable in the equation. The dummy variable used was of the big4 variable where a value of zero (0) is given when the audit was not done by big4, and a value of one (1) is given when the audit was done by the big4. Equation 1 presents the regression:

$$\text{Audit fee} = b_0 + b_1 \text{assets} + b_2 \text{invrec} + b_3 \text{ROA} + b_4 \text{big4} + \varepsilon \quad (1)$$

Where: Audit fee is the dependent variable; $b_0, b_1, b_2, b_3,$ and b_4 parameters; asset is the asset size; auditee total assets; Invrec is the proportion of total assets made up of inventories receivables; ROA is auditee profitability measurement; big4 is the dummy variable representing the existence of the big4 and ϵ is the error term.

2.10 Measurement of variables

2.10.1 auditee size

The size of the audit client was represented by the asset size and Invrec, which is the proportion of total assets made up of inventories and receivables. Both the asset size and Invrec are considered continuous interval scale because of order and equal intervals. The asset size hypothesizes that large auditees result in more complex audit services, which requires more audit efforts resulting in high audit fees. The Invrec (inventory and receivables) shows how complex the auditee is (Kikhia, 2015). The hypothesis of Invrec is that, the higher the number of Inventories and receivables, the higher the audit price due to more effort needed to do the audit service.

2.10.2 Big4

The big4 variable was used as a measure of the size of an auditor. big4 variable is a nominal or categorical variable. It is a dummy variable and has a value of “1” if the auditee is audited by one of the big4 and a value of “0” if not audited by the big4. The value of 1 or 0 does not show any intrinsic order. Prior studies which were done in the South African market found inconclusive results about the audit fee premium. This research is expecting a positive correlation between audit fees and big4.

2.10.3 Profitability

Return on Assets was used in this research to measure the profitability of an auditee which is a continuous variable because of the existence of order and equal intervals. The efficient use of resources generally produces Return on Assets (ROA). When the profit is high, there is a tendency by the stakeholders to minimize the agency costs since profit will be a sign of accomplishment. On the other hand, auditors tend to execute serious audits to validate the management proclamations on their profitability, which requires more time and leads to high audit pricing (Kanakriyah, 2020; Kikhia, 2015). On the other hand, low profitability can be related to high audit work due to financial pressure in authenticating the value of the client assets and checking the business's stability and life span (Choi et al., 2008). The study expects a positive correlation between audit profitability and audit fees (ROA).

IV. Presentation and analysis of results

4.1 Descriptive statistics and inferential statistics

Table 1: Descriptive statistics-combined sample, non-financial sample, and financial sample

	N	Minimum	Maximum	Mean	Std. Deviation
Non-financial					
Audit fees	825	32	588000	40247.74	79631.923
Asset Size	825	39127	6726539000	95531499.41	306057508.837
Invrec	825	0	649796000	5890319.44	21353876.863
ROA	825	-12	16	-0.03	4.433
Big4 dummy variable	825	0	1	0.58	0.494
Financial					
Audit fees	120	30	460000	31769.23	78967.972
Asset Size	120	14186	5690620000	86580527.57	254633015.328
Invrec	120	0	420796000	15141637.83	36372301.220
ROA	120	-9	10	-0.21	3.430
Big4 dummy variable	120	0	1	0.56	0.499
Combined					
Audit fees	945	0	558000	26948.88	79527.572
Asset Size	945	14186	6726539000	104982176.22	305762644.345
Invrec	945	0	649796000	8778083.74	21337107.242
ROA	945	-12	16	-0.06	4.318
Big4 dummy variable	945	0	1	0.57	0.495

Source: Authors’ computation (2022) from the data obtained from IRESS research domain

The descriptive summary statistics of the variables used in this research for the three different models (financial companies, non-financial companies, and combined companies) are presented in Table 1. The average indicators of the variables are calculated, summarised, and described, which helps find some of the variances in the dataset used before the regression analysis is conducted. As reflected in Table 1, the summary statistics include the number of observations, the maximum values, the minimum values, the mean values, and the standard deviations of all the variables used in this research.

For both models, the big4 variable minimum value is zero, and the maximum value is 1. The mean value of big4 for non-financial is 0.58 with a standard deviation of 0.494. The big4 mean value for financial is 0.56 with a standard deviation of 0.499. The number of observations that were used in this research is 945

observations which is the total of both the financial and non-financial companies. The financial companies have 120 observations, and the non-financial companies have 825 observations. Non-financial companies have the maximum value of audit fees of 588000, the minimum value of 32, the mean value of 40247.74, and the standard deviation of 79631.923. The financial companies have the maximum value of audit fees of 460000, the minimum audit fee value of 30, the mean value of 31769.23, and the standard deviation of 78967.972. The maximum value of assets size for non-financial companies is 6726539000 and for financial companies is 5690620000. The minimum asset size value for non-financial is 39127 and for financial companies is 14186. The asset size mean value of non-financial is 95531499.41 with a standard deviation of 306057508.837. The asset size mean value of the financial is 86580527.57 with a standard deviation of 254633015.328.

Invrec indicates a maximum value of 649796000 for non-financial companies and 420796000 for financial companies. The minimum Invrec value is 0, the mean value is 5890319.44, and the standard deviation is 21353876.863 for non-financial companies. For financial companies, the minimum Invrec value is 0, the mean value is 15141637.83, and the standard deviation is 36372301.220. The mean value of profitability (ROA) is -0.03, the standard deviation is 4.433, the minimum value is -12, and the maximum value is 16 for non-financial companies. For the financial companies, the maximum profitability value is 10, the minimum value is -9, the mean is -0.21, and the standard deviation is 3.430. Return on Assets (ROA) represents the profitability variable. The combined model shows the results of both financial companies and non-financial companies when combined.

The maximum and minimum values of the big4 dummy variable are as anticipated on both financial and non-financial companies. The mean audit fee values of both non-financial and financial companies are less than their standard deviations. Nevertheless, the mean audit fee value of non-financial companies is higher than that of the financial companies, which shows that the average audit fees paid by non-financial companies are higher than that of financial companies. The reason might be differences in their asset structures because non-financial companies usually have big asset sizes with more plants and equipment. The financial companies are most likely to have lower inventories and plant and equipment than non-financial companies. Invrec indicates a maximum value for non-financial companies, which is higher than that of financial companies. This might also be why non-financial companies pay higher audit fees than financial companies on average. Generally, when the asset size or inventory and receivables increase, the complexity of an organization will also increase, resulting in higher audit fees due to long hours and more experienced auditors needed to perform an audit service. The differences in the results of financial and non-financial companies used in this research are in line with the research done by Simunic (1980), where he explained that the fee structures of financial and non-financial companies are different.

a. Linear regression model

Three multiple linear regression models were used in this research to analyse and predict the relationships between the dependant and independent variables used in this study. The first model is for non-financial companies, the second is for financial companies, and the third is a combined model which includes both non-financial and financial companies. Three different models were used to see if the selected independent variables have the same impact on financial and non-financial companies since they have different asset structures. Due to the presence of heteroscedasticity, which was discovered using scatter plots, the study used the HC3 method to adjust and correct the presence of heteroscedasticity. HC3 method produces results with robust standard errors for the adjustment of heteroscedasticity. The internal validity of the regression models is indicated by the Adjusted R-squared.

The explanatory powers of all the three regression models used in this research are shown by the F-statistic which are presented on the ANOVA Table 2. The F-statistic of all the three models are statistically significant (Sig= 0.000). The null hypothesis for the F-statistic is always that the model has no explanatory power. This means that none of the independent variables helped to predict the dependant variables, which means that the model is spurious. From the results of the three models used in this research looking at the level of significance of (Sig=0.000), this shows very strong evidence to reject the null hypothesis that says the model has no explanatory power. The results show that the models can predict audit fees because they are statistically significant. All the three models have the explanatory power.

Table 2: ANOVA

Model		Sum of Squares	df	Mean Square	F-Stat	Sig.
1	Non-financial					
	Regression	2357168.20	4	589292.55	382.37	0.00
	Residual	1263764.089	820	1541.34		
	Total	3620931.29	824			
2	Financial					
	Regression	370795.70	4	92699.93	67.20	0.00
	Residual	158.635.07	115	1379.04		

	Total	529430.78	119			
3	Combined					
	Regression	2712656.56	4	678164.46	436.24	0.00
	Residual	1461285.24	940	1555.21		
	Total	4173940.80	944			

- a. Dependent Variable: audit fees in the amount
 - b. Predictors: (Constant), ROA in percentage, Asset size in amount, big4, Invrec in amount
- Source: Authors' computation (2022) from the data obtained from IRESS research domain

LINEAR REGRESSION WITH ROBUST STANDARD ERRORS

Table 3: Parameter estimates with robust standard errors- non-financial companies

Parameter	B	Robust Std. Error	T	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	37.25	0.49	74.58	0.00	36.27	38.24
Assetsize	0.03	0.01	3.14	0.00	0.05	0.01
Invrec	0.05	0.01	4.39	0.00	0.03	0.08
ROA	0.03	0.01	1.76	0.08	-0.00	0.05
Big4	3.16	0.09	36.28	0.00	2.99	3.33
N	825					
R-squared	0.65					
Adjusted R-squared	0.65					
F-static	382.37					
Prob(F-statistic)	0.00					

- a. HC3 method
 - b. Dependent Variable: audit fees in the amount
- Source: Authors' computation (2022) from the data obtained from IRESS research domain

Table 3 summarises the regression analysis results for the non-financial model. An adjusted R-squared of 0.649, which gives information about the fitness of the model, is shown. This means that 0.65 or 65% of the total variability in the dependant variable (audit fees) is explained by the independent variables used in the model. This result shows that the non-financial regression model is a slightly strong explanatory and predictive model. The study used Adjusted R-squared to interpret the fitness of the model instead of R-squared because of the high number of cases used in this research which tend to result in inflated results of R-squared. Adjusted R-squared considers these things and gives more accurate results of the explanatory power of the model. These results are showing that this model has a strong predictive and explanatory power. The explanatory power of the non-financial model is lower than the 80% and 72% that Davidson (2015) and Firer & Swartz (2007) found respectively.

Asset size, Invrec, and the big4 variables are individually positive and statistically significant in the prediction of audit fees. ROA is statistically insignificant. The constant for the audit fee model is statistically significant. The p-value measures the individual relationship between the independent variable and the dependant variable. The coefficient of asset size is 0.03, which shows that for every one-unit increase in asset size or every one rand increase in assets size, the audit fees increase by 0.03, holding other variables constant. This is in line with the prediction of this research, which predicted a positive relationship between asset size and audit fees. This is also in line with the general rule of the coefficients of the regression model, which states that every one-unit increase in the independent variable predicts an increase or a decrease in the dependant variable depending on the sign of the coefficient, that is whether it is negative or positive (Simon, 1995).

The coefficient of Invrec, which is the proportion of total assets made up of inventories and receivables, is 0.05. This shows that for every one-unit increase in inventories and receivables or for every one rand increase in invrec, the audit fees will increase by 0.05 holding other variables constant. This is in line with the prediction of the research that as the assets of the auditee (Invrec) increase, the audit fees also increase. ROA variable is not statistically significant, meaning that the auditee profitability did not have any positive or negative effect on audit fees determination from 2016 to 2020. The coefficient of the Big4 variable is 3.16, which explains that for every one-unit increase in big4 or for every addition of one big4 audit firm in the audit market holding other variables constant, the audit fees increase by 3.16. The results are in line with the prediction of this research, which was expecting the big4 variable to be an important determinant of audit fees by being statistically significant.

The results outcome for the auditee size is similar to those found by the research done internationally by Kikhia (2015) and Naser & Hassan (2016) and those done in South Africa by Davidson (2015) and Firer & Swartz (2007). They all found that the auditee size carries a significant impact in determining audit fees. The results for the big4 variables of this research are statistically significant like that of Firer & Swartz (2007), who found the same results. The results found by Davidson (2015) were not similar because the big4 variable was not statistically significant, which showed no evidence of the existence of audit fee premium during the study.

The results of this research and that of Firer & Swartz (2007) indicates the presence of audit fees premiums in the South African audit market.

Table 4: Parameter estimates with robust standard errors- financial companies

Parameter	B	Robust Std. Error	T-Stat	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	30.95	1.49	20.80	0.00	28.00	33.89
Assetsize	0.03	0.01	2.57	0.01	0.01	0.05
Invrec	0.11	0.03	4.49	0.00	0.06	0.16
ROA	-0.01	0.03	-0.32	0.75	-0.07	0.05
Big4	3.05	0.22	13.98	0.00	2.62	3.48
N	120					
R-squared	0.70					
Adjusted R-squared	0.69					
F-static	67.20					
Prob(F-statistic)	0.00					

a. HC3 method

b. Dependent Variable: audit fees in amount

Source: Authors' computation (2022) from the data obtained from IRESS research domain

Table 4 summarises the regression analysis results for the financial model. Adjusted R-squared of 0.69 which gives information about the fitness of the model is shown. This means that 0.69 or 69% of the total variability in the dependant variable (audit fees) is explained by the independent variables used in the model. This result shows that the financial regression model is a strong explanatory and predictive model. The explanatory power of the financial model is lower than the one found by Davidson (2015) of 80% and found by Firer & Swartz (2007) of 72%.

Asset size, Invrec, and the big4 variables are individually statistically significant in predicting audit fees. ROA results are statistically insignificant. The constant for the audit fee model is statistically significant. The coefficient of asset size is 0.03, which shows that for every one-unit increase in asset size or for every one rand increase in asset size, the audit fees increase by 0.03, holding other variables constant. This is in line with the prediction of this research, which predicted a positive relationship between asset size and audit fees. This is also in line with the general rule of the coefficients of the regression model, which states that every one-unit increase in the independent variable predicts an increase or a decrease in the dependent variable depending on the sign of the coefficient, that is whether it is negative or positive (Simon, 1995).

The coefficient of Invrec, which is the proportion of total assets made up of inventories receivables is 0.110. This shows that for a one-unit increase or one rand increase in Invrec, the audit fees increase by 0.110. This is in line with the prediction of this research that as the assets of the auditee (Invrec) increase, the audit fees also increase. ROA variable was not statistically significant, meaning that the auditee profitability did not have any positive or negative effect on audit fees determination. The coefficient of the Big4 variable is 3.050, which explains that for every one-unit increase in big4 or for every addition of one big4 audit firm in the audit market, the audit fees increase by 3.050. The results were in line with the prediction of this research, which was expecting the big4 variable to be an essential determinant of audit fees.

The results outcome for the auditee size is similar to those found by the research done internationally by Kikhia (2015) and Naser & Hassan (2016) and those which were done in South Africa by Davidson (2015) and Firer & Swartz (2007). They all found that the audit size carries a significant impact in determining audit fees. The results for the big4 variables of this research were statistically significant, just like that of Firer & Swartz (2007), who found the same results. The results found by Davidson (2015) and Simon (1995) were not similar because the big4 variable was not statistically significant, which shows that there was no audit fee premium during the time of this study. The outcome of this research and that of Firer & Swartz (2007) shows the existence of audit fees premiums in the South African audit market.

Table 5: Parameter estimates with robust standard errors- combined financial and non-financial companies

Parameter	B	Robust Error	Std. T	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	36.64	0.47	78.10	0.00	35.72	37.56
Asset size	0.02	0.01	2.30	0.02	0.04	0.00
Invrec	0.06	0.01	5.15	0.00	0.03	0.08
ROA	0.02	0.01	1.69	0.09	-0.00	0.05
Big4	3.19	0.08	39.19	0.00	3.04	3.36
N	945					
R-squared	0.65					
Adjusted R-squared	0.65					
F-statistic	436.24					

Prob(F-statistic)	0.00
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c. HC3 method

d. Dependent Variable: audit fees in amount

Source: Authors' computation (2022) from the data obtained from IRESS research domain

Table 5 summarises the regression analysis results for the combined model. The model has the explanatory power of (Adjusted R-squared = 0.65), which explains the proportion of the variance explained by the regression model. These results can be explained by saying that 0.65 or 65 % of the total variability in dependant variable (audit fees) is defined by the independent variables used in the model. The study used Adjusted R-squared instead of R-squared because of the high number of cases used in this research which tend to result in inflated results of R-squared. Adjusted R-squared considers these things and gives more accurate results of the explanatory power of the model. This result shows that the combined regression model is a very strong explanatory and predictive model. The explanatory power of this model is lower than the one found by Davidson (2015), which was 80%, and Firer & Swartz (2007), which was 72%

Asset size, Invrec, and the big4 variables are individually statistically significant in predicting audit fees. ROA results are statistically insignificant. The constant for the audit fee model is statistically significant. The coefficient of asset size is 0.02, which shows that for every one-unit increase in asset size or every one rand increase in asset size, the audit fees increase by 0.02, holding other variables constant. This is in line with the prediction of this research, which predicted a positive relationship between asset size and audit fees. This is also in line with the general rule of the coefficients of the regression model, which states that one unit increase in the independent variable predicts an increase or a decrease in the dependant variable depending on the sign of the coefficient, that is whether it is negative or positive (Simon, 2015).

The coefficient of Invrec, which is the proportion of total assets made up of inventories and receivables, is 0.06. This shows that for a one-unit increase or one rand increase in Invrec, the audit fees increase by 0.055. This is in line with the prediction of this research that as the inventories and receivables increase (Invrec), the audit fees also increase. ROA variable is not statistically significant, meaning that the auditee profitability did not have any positive or negative effect on audit fees determination. The coefficient of the Big4 variable 3.20 is, which explains that for every one-unit increase in big4 or for every addition of one big4 audit firm in the audit market, the audit fees increase by 3.20. The results were in line with the prediction of this research, which was expecting the big4 variable to be an essential determinant of audit fees.

The results outcome for the auditee size is similar to the ones found by the research done internationally by Kikhia (2015) and Naser & Hassan (2016) and those done in South Africa by Davidson (2015) and Firer & Swartz (2007). They all found that the audit size carries a significant impact in determining audit fees. The results for the big4 variables of this research were statistically significant, just like that of Firer & Swartz (2007), who found the same results. The results found by Davidson (2015) and Simon (1995) were not similar because the big4 variable was not statistically significant, which shows that there was no existence of audit fee premium during the time of the study. The outcome of this research and that of Firer & Swartz (200&) shows the existence of audit fees premiums in the South African audit market.

b. Robust testing

The following four critical assumptions for linear regression validity were calculated and explained: multicollinearity, homoscedasticity, and outliers.

c. multicollinearity

in Table 6, the VIF values > 10 and tolerance factor values close to zero showing that multicollinearity problem does not exist amongst the independent variables of all three models. Similarly, there is no evidence of collinearity found in the models as revealed in Table 6. This study corrected for heteroscedasticity by performing a re-run of multiple linear regressions with the robust standard errors in the SPSS to adjust for the presence of heteroscedasticity on the residuals.

Table 6: Collinearity statistics

Collinearity Statistics	Non-Financial		Financial		Combined	
	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF
ASSETSIZE	0.68	1.47	0.98	1.02	0.76	1.32
INVREC	0.47	2.11	0.89	1.12	0.58	1.72
ROA	0.59	1.68	0.91	1.10	0.71	1.41
BIG4	0.92	1.09	0.91	1.10	0.93	1.08

a. Dependent Variable: audit fees in amount

Source: Authors' computation (2022) from the data obtained from IRESS research domain

d. *Test for outliers*

The outlier¹ test for all three models was done to see the data points that highly deviate from other data points that are being analysed. The study used Cook’s Distance amongst several other ways to identify outliers. Cook’s distance measures how much influence a predictable variable has on the predicted value of the outcome variable. Precisely it refers to how far an average predicted Y value would change if the record were dropped from the data set. When the maximum value is greater than one, it indicates a case of a potential outlier. From Table 7 below, the maximum values of Cook’s distance of 0.050 for the non-financial model, 0,065 for the financial model, and 0.068 for the combined model were found which are below the standard. This means that of all the 945 observations, no outlier was found since Cook’s distance is lower than the benchmark value of 1.0.

Table 71: Cook's distance

Cook’s distance	Minimum	Maximum	Mean	St. Deviation	N
Non-financial	0.00	0.05	0.00	0.00	825
Financial	0.00	0.07	0.01	0.01	120
Combined	0.00	0.07	0.00	0.00	945

Source: Authors’ computation (2022) from the data obtained from IRESS research domain

V. Discussion, Conclusions, And Recommendations

Discussions of the results

The result of this research shows that the auditor size was statistically significant. This shows that the audit firm size was a very significant audit fee determination factor in the South Africa audit market from 2016 to 2020. The results show the presence of big4 audit fee premiums within the South African audit market. The result of this study is similar to Firer & Swartz (2007), who found the presence of big4 audit fee premium as audit fees determinant. From the research done by Davidson (2015), no presence of audit fees premium in South Africa was discovered. The difference in these results shows that from the time of Davidson’s research to the time of this research, many changes have happened in the audit market of South Africa. Big4 audit firms' market concentration in the South African audit market might also be another reason for the audit fees premium during this study. This is because, from the information found from the IRESS database, from 2016 to 2020, the market share of big4 was 91%. This point is supported by Wang, Sewon, and Chu (2014), who explained that when the audit market is concentrated with the big4 international audit firms, the result will be stiff competition which will promote high audit fees to be charged. Ittonen, Sormunen, and Tronnes (2019) also enlightened that the monopolistic power of the big4 caused by market concentration is the cause of high audit fees which the big4 is charging in the audit market for their audit services. This study supports the hypothesis that the audit fees charged by the big4 are higher than those charged by small auditees (non-big4). As explained by Simon (1995), the results of this research might be caused by industry specialization, product differentiation, and name development which causes the big4 to charge high audit fees. The results of this study are similar to Naser & Hassan (2016), Boon et al. (2005), and Gontheir-Besacier&Schatt (2007), that found big4 variable to be an essential determinant of audit fees.

From all the three models, auditee size as measured by the asset size and Invrec (inventory and receivables) were statistically significant. This shows that the size of an auditee is significant in the audit fee determination. The hypothesis which says the bigger the asset size and portion of inventory, the higher the audit fees. These results are similar to the earlier studies on audit fee determinants in South Africa (Simon, 1995, Firer & Swartz, 2007, and Davidson, 2015). Similarly, Kikhia (2015), Naser & Hassan (2016), and Simunic (1980) also found audit size to be a statistically significant determinant of audit fees. The proportion of inventory and receivables was statistically significant because as Invrec increases, client complexity also increases, leading to high audit fees. The result of this research supports the hypothesis that auditee size is positively associated with audit fees.

The profitability variable (ROA) results did not come out as predicted by the study that profitability would be statistically significant. Findings from the study revealed otherwise, implying that profitability. Perhaps, this could be that the auditors do not consider profitability as a significant factor in determining audit fees. The results of this research are like the research done internationally by Chan et al.

¹An outlier is a data point that is different from the rest of the data.

(1993) and Ezzamel et al. (2002), which did not find any connection between audit fees and auditee profitability.

This research aimed to observe if the audit fees determinant factors have the same impact on both financial and non-financial companies. The research has shown that even though the assets structures of financial companies and non-financial are different, the audit fee determinant factors had the same impact on both from 2016 to 2020. This means the same factors can be used in both non-financial and financial companies to determine the audit fees.

VI. Conclusions and recommendations

This research shows that auditee size and auditor size are essential determinants of auditee fees. Profitability is not crucial in determining audit fees. The conclusions from this study could be used as a tool to both parties, the auditors and the auditees, in the negotiations of audit fees. This will help both parties from unfair audit fees.

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