

Determinants of Audit fees in a Developing Economy: Evidence from Ghana

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Abstract

Audit fee studies, being a tool to assist negotiation between auditors and clients are regularly undertaken all over the world and essentially stem on the factors prevalent in the specific auditing/accounting environments.

The purpose of the study was to examine the determinant of audit fee with empirical evidence from the Ghana stock exchange. Specifically, the study examined audit fee determinant which included the client size, profitability measured by ROA, LOSS, client risk measured by debt ratio, YEAR (season) and MNC.

Using the Simunic (1980) model, this study reveals that client's size of business, international recognition, affiliation of audit firms (Big four firms) and profitability are significant determinants of audit fee in Ghana. Results in study indicate that ignorance of risk factor by the auditors may pose serious threat to fame and reputation of audit firm along with indication of feeble legal regime in Ghana. The results of the study have significant implications for auditors and firms in negotiating audit fees in Ghana. The results of this study is unique as it is the first study that comprehensively examines determinants of audit fees on listed firms in Ghana

Key words: Audit fees, Audit Risk, Developing Economy, Ghana

Introduction

The amount of fees paid to external auditors is of great importance to a number of stakeholders that is why disclosure practices requires that such information be disclosed in the financial statements of companies (Kikhia, 2015; Hentati &Jilani, 2013). While the determinants of audit fees are not new in literature, the significance of the determinants in pricing audit fees within a developing country context is limited. This study reviews factors pertaining to determinants of audit fees and an insight into the determinants of audit fees within a developing country context by focusing on listed companies in the Ghana Stock Exchange.

While the external audit fee is no different from other costs borne by the clients, the service received is hardly visible, with the only tangible "product" a relatively brief and standardized – audit report (opinion) (Ask &Holm, 2013). In this situation, clients would benefit from some external assurance that their fee is not disproportionate or out of proportion. Although much of the audit conducted by the external auditor is out of the sight of the audited firm, the latter derives satisfaction from the positive reviews received from the former regarding the latter's financial records. To the audited client, "transparency" of the auditing process or determinants

of audit fees may result in additional satisfaction (Hentati & Jilani, 2013; Kwong, 2011; Shafie et al. 2007).

Consequently, how could clients obtain an insight into the appropriateness of the audit fee charged by the clients or company's external auditors? What relative yardsticks might they employ to resolve or answer this question? The development of audit fee models should assist in providing benchmarks for assessing audit fees, which, in turn, should assist clients both in reviewing current fee levels as well as in better informing their choice of auditors. When external audit is put out for tender, identifying those variables that are significantly associated with audit fees should help refine the tender specification, and thus improve comparison of the tenders received: over time this could increase the competitiveness of the audit market, and consequently reduce prices.

Additionally, this process may well also indicate certain financial areas within the organization where closer attention to accounting and management issues could be beneficial. Also clients need to have confidence in their audited accounts if they are to discharge their duties effectively (Francis, 2004). Using the models could enhance directors' accountability for, and control of, the resources expended on audit of the financial statements (Paino & Tahir, 2012; Sundgren & Svanstrom, 2013).

Audit fee refers to the remuneration payable to an auditor for audit services rendered. In other words, an audit fee is a fee that a company pays an external auditor in exchange for performing an audit. The Ghanaian audit industry is regulated by Institutes of Chartered Accountants, Ghana (ICAG). Accountants in Ghana have to be cautious when entering into negotiations for professional work to avoid any issue that can ruin their independent professional judgment (ICAG, 2006).

The audit fee charged is influenced by auditor dependent factors: the reputation of the auditor, auditor experience, competition in the audit market (Hentati & Jilani, 2013; Ask & Holm, 2013; Castro et al. 2015). Audit fees is also determined by the clients' company factors such as company size, complexity of operations of the company, clients firm risk, and the profitability of the clients' firm (Joshi & Al-Bastaki, 2000).

Since the publication of Simunic (1980) on pricing of audit services, the area of study has been an interesting issue for researchers. Different studies have been conducted to explore the factors that determine audit fees charged by auditing firms. The knowledge of these factors is helpful for both clients and auditors because it leads to a better negotiation between client and auditor (Al-Harshani, 2008). Audit fee is determined on the basis of characteristics specific to auditing firm and client. Characteristics of client include: size of its business, complexity of its business and risk of the business. However, engagement attributes are also significant determinants of audit fee (Kwong, 2011; Sundgren & Svanstrom; 2013; Hentati & Jilani, 2013).

Hay et al. (2006) conducted a meta-analysis of the audit fee studies conducted up to year 2007. In their study, they discussed the audit fee determinants that have been used in all studies conducted regarding pricing of audit service. Results of the study show that auditors charge fee based on three factors. These are; *client specific* (client's business size, client's risk and client complexity), *auditor specific* (size of the firm) and *engagement* (busy season). The study shows that client's size of business had significant positive relationship with audit fee in all studies

while other attributes of client, that is, client's complexity of business and client's risk show mixed results. Audit fees are also determined by the client's company factors such as company size, complexity of operations of the company, client's company risk, and the profitability of the clients' company (Hay, Knechel, & Wong, 2006).

Although the determinants of audit fees in developed economies are known, little about determinants of audit fees in Ghana exist in literature. Moreover, there seem to be little or no empirical investigation into the relative significance of the determinants of audit fees on listed companies in Ghana. Thus, there is the need to examine whether the traditional determinants (client size, client profitability and client risk) of audit fee are significant in determining auditing fees in Ghana. The main objective of the study is to examine the significance of client specific factors in determining audit fees of quoted firms on the Ghana Stock Exchange.

Contributions of the study

The study contributes to both literature and the audit industry in Ghana. The study makes significant contribution to literature on audit pricing in developing countries especially Ghana where no previous study have examined the subject on listed firms in Ghana. The findings and conclusion of this study is envisaged to have an impact on audit price determination as a result of firms knowing the criteria for charging audit fees. Also, auditors would have insight into audit fee charges which would expand their capacity to charge accurate audit fees. To the researcher and the academic world, it would widen our knowledge on auditing and its fee determination especially with respect to Ghana, a developing country.

Literature review

Findings of previous studies showed that audit fee was charged based on two perspectives. Auditor perspective which established a relationship between audit fees and auditor attributes like: the audit firm size, reputation of the audit firm, competition among audit firms, specialization of the auditor, cumulative experience of the auditor, and auditor status. Client perspective which also established relationship between audit fees and client factors like: complexity of operations, company size, riskiness of operations, and profitability of the audited firm (Joshi & Al- Bastaki, 2000; Hay, Knechel, & Wong, 2006).

Client Size

Previous studies show that company size affects audit plans (Castro et al, 2015; Kikhia, 2014). Large companies require more attention than smaller companies therefore more time will be spent on audit work and as a result high audit fees will be charged on bigger companies as opposed to smaller ones (Xu, 2011; Simon & Taylor, 2002). Large size companies would be involved in more activities than small ones. They are usually more publicly visible and they tend to disclose more information than small companies. Prior research conducted by Joshi, (1999); Al-Shammari et al, (2008), and Xu (2011) provided conclusive evidence that "the size of the client is the most important variable in determining audit fees. Causholli et al. (2011), in their study regarding overview of empirical research related to audit fee found out that client's size of business is the most significant determinant of audit fee among all other determinants. The

reason for positive and significant relationship of audit fee with size of client's business was that labour usage and effort of auditor gets high as the size of company's business gets high. Consequently, more audit services and time are needed to audit large size companies than small ones. They also have enough financial resources to recruit big international audit firms. Hence, large size companies would pay higher fees than small ones (Carson et al., 2004; Vermeer et al., 2009). A positive relationship has been found between the audited company size and the fee charged by auditors (Simunic, 1980; Low, Tan, & Koh, 1990). Most common measures of company size include: the number of personnel, total revenues of the firm, and the total assets. Some studies used different proxy than actually used for client's size of business. Client size can also be measured by using number of employees as proxy (Freischer, 2012). A current study by Fleischer (2012) in a developed economy provided evidence of German market regarding the relation between client's size and audit fee by using a different proxy than actually used for client's size of business. His study used number of employees as proxy for client's size of business. Results of his study showed that client's size of business has highest explanatory power and showed a significant positive relationship with audit fee. Previous empirical research showed size to be the main factor that influences external auditor's fees (Naser & Nuseibeh, 2008; Ellis & Booker, 2011).

Client Complexity

The common indicator of audited firm complexity is number of subsidiaries and branches (both local and foreign) of the client company, proportion of foreign subsidiaries, the number of industries in which the company participates, the number of different company locations and variables relating to asset composition, receivables to total assets, inventories to total assets, both of them to total assets and number of industries in which the client operates and so on (Simunic, 1980; Chan et al 1993). Highly diversified firms and companies with many subsidiaries have complex operations requiring comprehensive auditing by the auditor.

Consequently, high audit fees will be charged by auditors for complex clients. This was confirmed by a study by (Sandra & Patrick, 1996) which found that firms with complex operations pay high fees for audits. Foreign subsidiaries have to adhere to several laws and disclosure requirements, which requires more manpower and time by the auditors to conduct their audit. There is a positive relationship between audited firm complexity and audit fees charged by the auditors (Carson, Fargher, Simon, & Taylor, 2004).

Joshi et al, (2000) supported the claim that complexity of business has a positive relationship with audit fee, that is, diversified business with foreign operations leads to complex audit process. If organisations have more subsidiaries then it requires more complex audit work leading to firms charging higher audit fees. Sandra et al; (1996) stated that "auditors of group companies, with a number of subsidiaries or branches, often incurs high costs in examining the individual financial statements and in assessing the accuracy of consolidated financial statements as these statements have to comply with a variety statutory and professional requirement for disclosure and thus this entails additional audit testing". This implies that the companies directly proportional to rigorous audit work hence higher audit fee (Cameran 2005;

Firth, 1985). However, Firth (1985) found that the number of subsidiaries and the scope can be used as a measurement to determine the audit fees.

Many studies conclude that complexity in terms of number of subsidiaries has a significant influence on the level of the audit fee (Hentati & Jilani, 2013; Ask & Holm, 2013; Castro et al. 2015).

Client Risk

Client risk has been found to be a significant factor considered in charging audit fees. It gives odds of issuing an unqualified report on otherwise significantly misstated accounts by an auditor (AICPA, 1983). Sandra and Patrick, (1996) used debt ratios as measures of client risk. Additionally, client risk can also be measured by the following ratios: current assets to total assets; long-term debt to total assets; income before taxes to total assets (Simon, and Taylor, 2004; Joshi and Al- Bastaki, 2000). The best measure of client risk is the debt ratio (long-term debt/total assets); it shows how able a company can repay its long- term debt. A high debt ratio indicates the long-term capital structure of the company may be affected, since the company may have difficulties in the debt repayments which may lower the credit rating of the company. Risky companies tend to be loss making and faced with legal suits both on the auditor and the company due to bankruptcy proceedings that may be instituted against the company. Auditors of risky companies have to undertake further tests in their audit work therefore more time on the work and as a result high audit fees will be charged (Francis & Simon, 1987; Craswell and Francis, 1999).

Client's risk is an important determinant of audit fee and in almost all the studies conducted regarding audit fee, risk of client has significant positive relationship with the audit fee (Hay, 2010). Client risk is basically the risk that the auditors may face in their process of auditing a business's financial statements. Meanwhile audit risk can also be due to loss of fee revenue and reputation damage (Elliot, 2008). Hence audit risk is basically the risk that the auditors would be held liable for failure of auditor of a business to identify misstatements in financial statements.

Auditors assess the risk in conducting the audit of a business and on the basis of risk perceived by them, they charge an extra fee which is called as risk premium. Risk premium is based on different factors. For example, the business condition, that is, whether the business is in losses or in profits, legal regime of that country, the degree to which external users rely on financial statements etc. Auditors charge extra fee (risk premium) from clients whose risk is high (Brum field et al., 1983; Lin et al. 2008). Charles et al. (2010), point out that usually auditors assess the risk of client before conducting its audit. This show that auditors charge high fee for the firms where they perceive risk to be high and hence put extra effort in conducting the audit of such companies. The auditors seek insurance cover for risk and tailoring the audit fee according to client's risk is rational behaviour of auditor from economic point of view.

Client Profitability

Corporate profits are used to appraise the performance of the management in making efficient use of the resources allocated to them. Profits can be determined by looking at the reported

figures in the financial statements (Sandra & Patrick, 1996; Naser et al. 2013). Companies reported high levels of profit would disclose more information to highlight their achievements and reduce agency costs (Watts & Zimmerman, 1986). Disclosing more information will be used by management of a profitable company to signal information about their performance to strengthen their position and justify their compensation (Hassan & Naser, 2013)). These companies will be subjected to rigorous audit testing to verify and confirm their revenues and matching expenses (Joshi & Al-Bastaki, 2000). Hence, profitable companies would pay high audit fees.

Profitability has been commonly measured by: Return on Equity (ROE); Return on Assets (ROA); Return on Investment (ROI); and Return on Capital Employed (ROCE). Client profitability levels influences the audit fees charged by auditors (Sandra & Patrick, 1996).

Auditor Size

Another variable under study is auditor size. The large ones, known as Big four firms, have become consolidated in the market and have international recognition. Choi, Kim, & Zang, (2010) analyzed the relationship between the size of the auditor, quality of audits and corresponding fees. They established that large audit firms charge a premium for their high-quality audits. Big audit firms charge high audit fees (Francis 2004). Therefore, auditor size is correlated positively to the audit fees charged (Siddiqui et al. 2013). Similarly, studies have shown the positive relationship between auditor size and the quality of its services (Hassan and Naser, 2013).

Auditor size can be determined by the assets held by the audit firm, market share of the auditor and the total workforce of the auditor. The audit quality is not independent in relation to the size of the company carrying it out; the larger the audit firm – measured by the number of clients – the smaller incentive for an auditor to perform inappropriately for establishing or maintaining a client (DeAngelo, 1981). This is to say, large audit firms with higher financial independence puts them at a less susceptible position in relation to client pressures. This fact adds to a greater insight of audit quality.

Research Methods

The population of the study was drawn from the firms listed on the Ghana stock exchange throughout the period of 2010 to 2014 and their respective auditors; this was informed by the availability of published annual reports by the listed firms in Ghana. Companies without financial results for the period of 2010 to 2014 were not analyzed in this study. The research was based on the annual report of these companies listed on the Ghana Stock Exchange for the period of 2010 to 2014. Data was collected through secondary sources from the published annual reports of the listed firms that were obtained from their respective websites.

Hypothesis development

Client size of Business

Studies have revealed that, the size of client's business is considered to be the most important determinant of audit fee (Hay, 2010). The expected relationship for this variable is positive,

thus, a positive relationship has been found between client size of business and the fee charged by auditors (Simunic, 1980; Bedard & Johnstone, 2010). It is represented with SIZE and measured by taking natural log of client's business assets.

H1: Audit fees is positively associated with the size of the auditee

Client Risk

Client risk is the risk associated in conducting the audit of client's business. It is referred to in some studies as audit risk. Auditors charge fees in commensurate with the riskiness of client's business (Calderon et al., 2012; Graham & Messier, 2006). The current study measures audit risk by 1) debt ratio, 2) return on assets and 3) a dummy variable loss. Debt ratio is a measure of firm's leverage and is found by dividing total liabilities by total assets. Return on asset measures a firm's profitability and is found by dividing net income by total assets. Both variables are expected to negatively relate with audit fee which means that auditor will charge fewer fees for a company which is highly leverage and highly profitable. Therefore, we can say audit risk is lower because the higher these ratios, the lower the level of risk in business. Profitability variable, that is, ROA can also be positively related with audit fee and hence auditors charge high fee for companies which are profitable (Alharshani, 2008). Companies reported high levels of profit would disclose more information to highlight their achievements and reduce agency costs (Watts & Zimmerman, 1986). These companies will be subject to rigorous audit testing to their revenues and expenses (Joshi & Al-Bastaki, 2000). Hence, high audit fees will be charged. The third variable of audit risk is dummy variable LOSS which is equal to 1 if the firm experiences a loss in the current year and 0 otherwise. Audit risk can also be due to loss of fee revenue and reputation damage (Bedard & Johnstone, 2010). Relationship of this variable is expected to be positive with the audit fee because in almost all the studies conducted regarding audit fee, risk of client has significant positive relationship with the audit fee (Hay et al. 2006).

H2: Audit fee is positively associated with the clients' risk

Auditor Size

The reputation and affiliation with big auditing firms forms the basis of auditor size, this thereby influences the audit fee charged by auditors. As shown by literature on auditing, there were originally eight firms known as "Big Eight" due to their global recognition, reputation and highest market share in terms of number of clients audited. The "Big Eight" consisting of group of eight firms was then reduced to the "Big Six" and then "Big Five" by a number of consolidations. The Big Five has also been reduced to the "Big Four" after the demise of Arthur Andersen in 2002, due to its involvement in the Enron scandal (Casterella et al, 2010). The superiority these four firms possess in terms of technology and skill in the accounting and auditing field has created room for high audit fees to be charged. The majority of studies show that auditor size is a significant determinant of audit fee (Hay et al. 2006).

H3: Audit fee is positively associated with size of the auditee

Financial Year (season)

This is the accounting period that can start on any day of a calendar year but has 12 consecutive months. As stated earlier, the reporting season can be classified as either the busy period or the non-busy period for the auditors. Busy period is considered to be December to March. Companies with their financial years ending in the busy period would pay high audit fees than those in the non-busy reporting season (Craswell, Francis, and Taylor, 1995). It is assumed auditing firms get busy in these days and hence charge high audit fees in these days. In Ghana, officially the financial year ends at 31st of December so year-end dummy variable is used to capture the busy season effect and is equal to 1 if the client's business year also ends at 31st of December. Year-end dummy variable is expected to positively relate with audit fee.

H4: Audit fees are positively associated with auditee whose financial year ends in December.

Client Profitability

The profitability of the auditee has been found to be associated with audit fees (Sandra & Patrick, 1996; Chung & Lindsay, 1988; Hentati & Jilani, 2013). Several proxies such as Return on Assets, Return on equity, Return on capital employed etc have been used to measure firm profitability. Companies that reports high levels of profit would disclose more information to highlight their achievements and reduce agency costs (Watts & Zimmerman, 1986). These companies will be subjected to rigorous audit testing to verify and confirm their revenues and matching expenses (Joshi & Al-Bastaki, 2000). Hence, profitable companies would pay high audit fees.

H5: Audit fee is positively associated with Client's firm profitability

Origin of Company

It is assumed that multinational companies comply with the rules, regulations and standards in order to produce reliable and quality audit report. Multinational companies adhere to the auditing standards and do not compromise on the quality of audit (Ahmed & Goyal, 2005). MNC is the dummy variable used for capturing this effect. MNC would be equal to 1 if the firm being audited is multinational company. MNC variable is expected to positively relate to audit fee.

H6: Multinational companies are positively associated with higher audit fees

In reference to existing empirical studies, the following panel regression model was specified:

$$AUDFEE_{it} = \alpha + \beta_1 SIZE_{it} + \beta_2 DR_{it} + \beta_3 ROA_{it} + \beta_4 LOSS_{it} + \beta_5 BIG4_{it} + \beta_6 YEAR_{it} + \beta_7 MNC_{it} + \varepsilon_{it}$$

Where;

α = intercept

AUDFEE = Natural log of audit fee

SIZE = Natural log of total asset

DR = Debt ratio

ROA = Return on Assets.

LOSS = Dummy variable for loss. Equal to 1 if firm experienced a loss during the year.

BIG4 = Dummy variable for Big 4 firm. Equal to 1 if the auditing firm is from BIG4

YEAR = Dummy variable for year end. Equal to 1 if the financial year of company ends on 31th December.

MNC = Dummy variable for origin of company. Equal to 1 if firm is Multinational Company.

ϵ = Error Term

Where subscript *i* and *t* represent firms on the GSE and time respectively.

Table 1: Definition of variables (Audit fee determinants)

Dependent Variable	Variable Definition
AUDFEE	Natural log audit fee
Independent Variable	Variable Definition
SIZE	Natural log of total assets
DR	Debt ratio = Total Liabilities / Total Assets
ROA	Return on Assets = Net income/ Total Assets
LOSS	Dummy variable for loss
BIG4	Dummy variable for Big 4 auditing firms
YEAR	Dummy variable for year end
MNC	Dummy variable for origin of company

Auditors fee were found not to vary with time. This may be as a result of auditors applying different pricing policies at different time (or in different periods) (Simunic, 1980, p. 187).

Analysis and Discussion

Descriptive Statistics

Table 2 is the representation of the descriptive summary statistics of the variables used in the study. This indicates the average indicators of variables computed from the financial statements. This assist in the identification of some abnormalities in the dataset before the regression is conducted. The data was set in terms of number of observations, mean, standard deviation, minimum value, and maximum value. The variables are reported in two categories, that is, continuous variables and dummy variables. As expected, the minimum value for dummy variables is zero and the maximum value is one. A total of 120 observations were employed for the study of audit fee determinants. Audit fee for the firm (AUDFEE) which is measured by natural log of audit fee has a minimum value of 0 and maximum value of 3.144574. The mean value of audit fee is 2.18904 with a standard deviation of 1.27879. Client's size of business (SIZE) is measured by natural log of total assets and varies from minimum of 10.08096 to maximum of 22.45839. The mean value of client's size of business is 17.5825 and standard deviation is 3.609642.

Debt ratio (DR) shows the proportion of a company's assets that are financed by debt. A ratio of 0.82436 implies that the company depends heavily on debt and has little equity. It has a minimum value of 0.022226, maximum debt ratio of 21.12634 and standard deviation of 1.923592. The standard deviation of the leverage ratio together with the minimum and

maximum amounts pointed to major variations in the level of leverage among the surveyed companies.

Return on assets (ROA) indicates a minimum value of -5.648704 and maximum of 0.554681. On average companies have ROA of -0.02686 which indicates that each company has an average return on assets of 4.3 percent. The standard deviation is equal to 0.6825675.

Big four (BIG 4) firm shows the big four auditing companies that operate in the country. It has mean of 0.6218487 and a standard deviation of 0.4869761. This means that 62.18 percent of companies employ big 4 firms. Result of this study regarding big firm effect support the results drawn by Ahmed and Goyal (2005), in their study Pakistan market. Thus it can be concluded that big firms charge high fees from client.

On average, the results show that companies which experience loss (LOSS) are 0.15 percent of sample. MNC variable also show that 58 percent of companies are multinational, and companies whose year ends on 31stDecember (YEAR) are 83 percent of sample. The reason being that majority of listed company on Ghana Stock Exchange has their accounting year ending on Ghana’s official financial year (31st December).

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min.	Max.	Obs.
AUDFEE	2.18904	1.274879	0	3.144574	120
Assets	17.5825	3.609642	10.08096	22.45839	120
DR	0.82436	1.923592	0.022226	21.12634	120
ROA	-0.02686	0.6825675	-5.648704	0.554681	120
LOSS (<i>Dummy</i>)	0.15	0.3585686	0	1	120
BIG4 (<i>Dummy</i>)	0.6218487	0.4869761	0	1	120
Year (<i>Dummy</i>)	0.8333333	0.3742406	0	1	120
MNC (<i>Dummy</i>)	0.5833333	0.4950738	0	1	120

Correlation Matrix Showing the Relationship between the Various Variables

A pairwise correlation analysis is conducted to reveal the covariance properties of the variables. Table 3 shows the results of the correlation analysis. The point of interest is the first column which shows the correlation matrixes between the dependent variable (AUDITFEE) and the independent variables the results suggests that ROA and audit fee are inversely related that is as firms obtains higher profits, auditors charge lower fees. Also there a positive relation between size and audit fee indicating that the larger the clients company the higher audit fee charged. Risk is negatively related indicating that risk factors do not affect the audit fee charged. In addition, BIG4 is positively related to audit fee and LOSS and MNC are negatively related. The correlation results also show that the data have no problem with multicollinearity as none of the independent variable had correlation coefficient with each other up to 0.8.

Table 3: Correlation matrix

Variable	AUDFEE	Assets	DR	ROA	LOSS	BIG4	Year	MNC
AUDFEE	1							
Assets	0.01	1						
DR	0.12	-0.04	1					
ROA	-0.08	0.07	-0.85	1				
LOSS	0.14	-0.03	0.25	-0.37	1			
BIG4	0.63	-0.11	0.04	0.04	0.19	1		
Year	0.12	-0.12	0.07	-0.05	-0.07	0.13	1	
MNC	0.00	-0.22	0.09	-0.08	-0.12	0.22	0.05	1

Panel Regression

In the literature review, it was noted that audit fee falls within demand-based pricing. In that respect, many factors that affect audit fees are entity (or company) specific such as company size, profitability, etc. As a result of this, the fixed-effects estimator is specified in running the panel regression. This is done because the major point of concern is assessing the relationship between the dependent and independent variables within an entity (or a company). Fixed-effects is specified also because the point of interest is analysing the impact of variables that vary over time.

In applying the fixed-effects model, variables that do not vary over time may be omitted. Irrespective of this, the model specified in this study takes cues from literature by including dummy variables.

Table 4 below shows the results of the panel regression model. The table reports the variables, coefficients, and p-values of the independent variables. Information regarding the model fit is also reported.

Table 4. Correlated Panels Corrected Standard error regression results

Variable	Coef.	Sig.	Std. Error
Constant	-29.10	0.00	4.40
Assets	1.72	0.00	0.25
DR	0.00	0.90	0.076
ROA	-1.03	0.00	0.24
LOSS	-0.18	0.59	0.33
BIG4	1.63	0.00	0.21
Year	0		
MNC	0		

R-square	0.7293
F value	48.48
Prob. F	0.0000

The results as presented in table 4 on the determinant of audit fee with evidence from Ghana Stock Exchange (GSEs) show that size of client's business has significant positive relationship with audit fee. The fact that labour usage and efforts of auditor increase with client's size of business holds true in Ghana (Fleischer, 2012) and results are in accordance with the meta-analysis of Hay (2010). Out of three proxies for audit risk, client's profitability i.e. ROA has significant relationship with audit fee. Moreover, the relationship of ROA with audit fee is opposite to what was expected. This shows that auditors do not care for risk factors rather they charge for by looking mainly at profitability of their client (Al-hashani, 2007). This can be inferred that risk of client or audit risk has not got a significant positive relationship with audit fee. Another possibility of insignificant relationship of audit risk with audit fee is that Ghana has not got a strict legal regime and therefore auditors do not care for risk (Choi, 2008).

Results of study show that big audit firm effect is present in Ghana. This shows that big firms are considered superior in Ghana and they conduct quality audit, and therefore are given premium by clients. Additionally, Ghana is a developing country and companies appoint big auditors to signal high corporate governance and high quality audit to investors (Michas, 2010). Results of this study regarding big firm effect support the results drawn by Ahmed and Goyal (2005), in their study of Pakistan market. Thus, it can be concluded that big firms charge high fee from clients.

Regression results show that busy season effect is not observed in Ghana and auditors predict the workload and do not feel burdened while conducting audit in the time when Government year is ending (Karim & Hasan, 2012). Thus, it can therefore be said that there is an insignificant relationship of busy season with audit fee. Origin of company shows insignificant relationship with audit fee as suggested by results of Regression estimation. This negates the fact that multinational companies follow high standards and spend high on auditors. On the basis of results, it can be said that there is an insignificant relationship of company's origin with audit fee.

Conclusion

This study examines a sample of 24 firms during the period 2010-2014 to explore audit fee determinants and its relationship in Ghana. Results indicate that size of client's business, as reported in previous audit fee studies, remains the highest significant variable in determination of audit fee.

The audit (client) risk factor shows an unusual result. Only a single proxy for risk i.e. client profitability has got significant relationship with audit fee. This shows that the risk factor is almost ignored in Ghana by auditors. A rationale for this could be that, in Ghana rules and regulations are not strict and hard like developed countries where mostly auditors are held liable and punished for manipulation of accounting figures. The risk factor is kept in by auditors in countries where the rules and regulations are strict and auditors are questioned for concealing and misrepresentations in financial statements. It can be concluded that auditors in Ghana ignore the risk factor while negotiating audit fee. Ignoring of risk factor is a matter of concern for the auditors as they could be held liable for a failure of flop of business which may defame the auditor's reputation.

Results support the fact that big four auditors are significant determinant of audit fee. In Ghana, big four firms charge extra fee for their services and due to their superiority on non-big four firms in terms of technology and technique, they charge high audit fee. Thus, it supports the fact that big four firms influence the audit fee charged.

In Ghana, business year of the firm does not influence amount of audit fee charged by auditor and is not an important determinant of audit fee. Thus, auditors in Ghana do not give importance to the business year of client while deciding audit fee.

Results show that in Ghana, multinational companies' trend of spending high on auditors is absent. The rationale may be that multinational companies have started to maintain a strong internal audit mechanism and therefore do not spend extra.

References

- Al-Harshani, M. O. (2008). The pricing of audit services: evidence from Kuwait. *Managerial Auditing Journal*, 23(7), 685-696.
- Al-Shammari, B., Brown, P., & Tarca, A. (2008). An investigation of compliance with international accounting standards by listed companies in the Gulf Co-Operation Council member states. *The International Journal of Accounting*, 43(4), 425-447.
- Ask, J., & LJ Holm, M. (2013). Audit Fee Determinants in different Ownership Structures: The Swedish Setting. *Master thesis in Accounting Auditing and Business Analysis*. UPPSALA University Diva-potal.
- Bedard, J. C., & Johnstone, K. M. (2010). Audit partner tenure and audit planning and pricing. *Auditing: A Journal of Practice & Theory*, 29(2), 45-70.
- Calderon, T. G., Wang, L., & Klenotic, T. (2012). Past control risk and current audit fees. *Managerial Auditing Journal*, 27(7), 693-708.
- Carson, E., Fargher, N., Simon, D. T., & Taylor, M. H. (2004). Audit fees and market segmentation—further evidence on how client size matters within the context of audit fee models. *International Journal of Auditing*, 8(1), 79-91.
- Castro, W. B. D. L., Peleias, I. R., & Silva, G. P. D. (2015). Determinants of Audit Fees: a Study in the Companies Listed on the BM&FBOVESPA, Brazil. *Revista Contabilidade & Finanças*, 26(69), 261-273.
- Causholli, M., De Martinis, M., Hay, D., & Knechel, W. R. (2011). Audit markets, fees and production: Towards an integrated view of empirical audit research. Available on Research Gate.
- Che-Ahmad, A., & Houghton, K. A. (1996). Audit fee premiums of big eight firms: Evidence from the market for medium-size UK auditees. *Journal of international accounting, auditing and taxation*, 5(1), 53-72.
- Choi, J. H., Kim, C., Kim, J. B., & Zang, Y. (2010). Audit office size, audit quality, and audit pricing. *Auditing: A Journal of practice & theory*, 29(1), 73-97.
- Craswell, A. T., Francis, J. R., & Taylor, S. L. (1995). Auditor brand name reputations and industry specializations. *Journal of accounting and economics*, 20(3), 297-322.
- Firth, M. (1997). The provision of non-audit services and the pricing of audit fees. *Journal of Business Finance & Accounting*, 24(3), 511-525.

- Francis, J. R. (1984). The effect of audit firm size on audit prices: A study of the Australian market. *Journal of accounting and economics*, 6(2), 133-151.
- Francis, J. R., & Simon, D. T. (1987). A test of audit pricing in the small-client segment of the US audit market. *Accounting Review*, 145-157.
- Fleischer, R., & Goettsche, M. (2012). Size effects and audit pricing: Evidence from Germany. *Journal of International Accounting, Auditing and Taxation*, 21(2), 156-168.
- Graham, L., & Messier Jr, W. F. (2006). Audit risk and materiality in conducting an audit. *Journal of Accountancy*, 201(5), 116.
- Hassan, M. Y., & Naser, K. (2013). Determinants of audit fees: Evidence from an emerging economy. *International Business Research*, 6(8), 13-25.
- Hay, D. C., Knechel, W. R., & Wong, N. (2006). Audit fees: A Meta-analysis of the effect of supply and demand attributes. *Contemporary accounting research*, 23(1), 141-191.
- Hentati, E., & Jilani, F. (2013). The determinants of non-audit fees in French firms. *Management Science Letters*, 3(6), 1773-1782.
- Joshi, P. L., & Al-Bastaki, H. (2000). Determinants of audit fees: evidence from the companies listed in Bahrain. *International journal of auditing*, 4(2), 129-138.
- Kikhia, H. Y. (2014). Determinants of Audit Fees: Evidence from Jordan. *Accounting and Finance Research*, 4(1), 42.
- Kwong, J. (2011). The relationship between industry specialization and the audit fee premium in New Zealand. *International Journal of Business and Social Science*, 2(4).
- Naser, A. A. K., Al-Mutairi, A., & Rana Nuseibeh, K. (2013). Can substitution and signaling theories explain the relationship between external audit fees and the effectiveness of internal corporate governance?. *Global Journal of Management and Business Research*, 13(5)
- Paino, P. H., & Tahir, W. M. M. W. (2012, September). Financial reporting risk assessment and audit pricing. In *Business, Engineering and Industrial Applications (ISBEIA), 2012 IEEE Symposium on* (pp. 85-89). IEEE.
- Sandra, W. M. H., & Patrick, P. H. N. (1996). The determinants of audit fees in Hong Kong: an empirical study. *Asian Review of Accounting*, 4 (2), 32-50.
- Shafie, R., Che Ahmad, A., & Md Ali, A. (2007). The relationship between non-audit service fees and audit fees in the banking sector in Malaysia. *International Journal of Management Studies (IJMS)*, 14(1), 61-87.
- Siddiqui, J., Zaman, M., & Khan, A. (2013). Do Big-Four affiliates earn audit fee premiums in emerging markets?. *Advances in Accounting*, 29(2), 332-342.
- Simon, D. T., & Taylor, M. H. (2002). A survey of audit pricing in Ireland. *International Journal of Auditing*, 6(1), 3-12.
- Simunic, D. A. (1980). The pricing of audit services: Theory and evidence. *Journal of accounting research*, 161-190.
- Sundgren, S., & Svanström, T. (2013). Audit office size, audit quality and audit pricing: evidence from small-and medium-sized enterprises. *Accounting and Business Research*, 43(1), 31-55.
- Vermeer, T. E., Raghunandan, K., & Forgione, D. A. (2009). Audit fees at US non-profit organizations. *Auditing: A Journal of Practice & Theory*, 28(2), 289-303.
- Watts, R. L., & Zimmerman, J. L. (1986). Positive accounting theory. *Prentice-Hall Inc.*

XU, J. Z. Y. (2005). The Determinants of Audit Fees: Evidence From the China's Listed Companies in 2001—2003 [J]. *China Accounting Review*, 1(006).