EMPIRICAL ANALYSIS FOR DETERMINANTS OF AUDIT FEES; EVIDENCE FROM PUBLIC INSTITUTIONS IN TANZANIA

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ABSTRACT

This study intends to analyze the determinants of audit fees for public institutions in Tanzania. Also, the study seeks to fill the gap through testing the relationship between employed study variables in an explanatory design. The study was guided by seven predictors which were internal audit/controls, macroeconomic variables, complexities, regulations/reputations, client size, audit expenses, and auditor size which were tested on audit fees as the dependent variable. The study employed secondary data covering the period of 5 years (2013-2018) from 11 public companies/organizations based on the identified independent variables with a pooled regression model. The collected facts were computed and examined through E-view software version 9 to generate statistical measurements concerning the dependent variable. The study results indicate that four predictors which are recognition/reputation, audit size, client size, and audit expenses have a positive significant effect on the determination of audit fees ($p<0.05$). However, the other predicting variables which are internal audit/controls, macroeconomic variables, and complexities were positive with insignificant effect on audit assignment pricing. The empirical findings indicate that for public entities, audit fee is a function of audit size, reputation/recognition, client size, and expenses. On that note, the study recommends that it is important for the Government to prepare clusters among its entities to enable variations in auditing requirements to reduce costs, limit malpractices such as corruption, briberies, nepotism, and others; presenting true and fair results as well as enabling opportunities for small audit firms to participate in the practice.

Keywords; Audit fees, Auditing, Public sector, Complexity

1.0 BACKGROUND OF THE STUDY

1.1 Introduction and General Background

Auditing is a systematic examination of the books and records of a business of the organization to ascertain or verify, and to report upon the facts regarding the financial operation and result thereof. Auditing can also be termed as an investigation or search for evidence to enable an opinion to be formed on truth and fairness of financial and other information by an independent person to increase the credibility of the report for usefulness (Mitra et al., 2007).

The audit fee is the consideration paid to auditors for the provision of their professional services to the auditee. Audit practice often involves setting up appropriate fees based on the scope of work, expertise, risk, client, and auditor-specific factors (Knechel et al., 2008). Furthermore (Chia et al., 2007) argue that it is paramount for auditors to have in place objective and fair pricing models which harmonize their interests and that of the client and short of gaining a clear understanding of how best to set audit fees often leads to poor judgement and could have adverse effects on the auditor. Also,

some evidence suggests that an economic downturn can affect the relationship between audit and non-audit fees and their ratios (Castro et al., 2015).

In Tanzania, the National Board of Accountants and Auditors (NBAA) is the supreme government agency that supervises and oversees all professional activities of accountants and auditors. In September 2019 NBAA issued a revised guideline on how audit firms should determine their fees together with average minimum and maximum fees to be charged. However, most audit firms charge divergent gross audit fees based on their judgments of the task at hand, and premising on other variables such as macroeconomic variables, firm size, reputation, and complexities among others.

The above situation implies that it is not categorically clear which exact parameters NBAA used to come up with such rate for auditing engagements. Also, is not clear which parameters audit firms use to determine their fees concerning audit of public institutions in Tanzania. Several studies have shown the importance of client size, complexity, risk, and auditor status in the determination of audit fees (Chia et al., 2013; Chia et al., 2007; D et al., 2015; Fafatas et al., 2010). However, the key factors which are used by a public institution in Tanzania to determine audit fees are still undisclosed. Therefore, the current study tries to investigate fundamental variables which can be used to establish audit fees and come up with appropriate fees in relation to the audit assignments/engagements.

In Tanzania, public institutions are audited by the Controller and Auditor General (CAG) who engages different audit firms to express an opinion on the state of affairs of government institutions. Each of the auditor's charges variant fees, yet little information is available on the specific factors they consider in determining their audit fees. Furthermore, (Elliott et al., 2013) point out that it is very complex to set appropriate audit fees amongst engaging audit firms and clients. The same situation is bound to continue in Tanzania unless a study is undertaken to evaluate the effect of client size, auditor size, macroeconomic variables, firm size, their reputation, and complexities on audit fees setting in public institutions. Thus, the current study sought to examine the determinants of audit fees for public institutions in Tanzania.

This study may be beneficial to the Government of Tanzania since it provides benchmark/ highlights on the determinants of audit fees. Such highlights provide basic information which can be used in decision-making by not only government institutions, but also private entities at large.

1.2 Accountability aspect of the Tanzanian Public Institutions

The public sector has a great job to do in fulfilling their responsibilities and also to be able to achieve their targets. In Tanzania, each public sector has crucial roles to perform vested in it and as provided in its mandate. At the end of the final year, all public institutions are required to present financial statements which show true and fair views which again are audited by the external auditor. According

to the public finance act (2004), the external auditor for all public institutions is Controller and Auditor General. Also, according to the public audit act (2008), the external auditor is required to report the state of affairs to the parliament detailing the audit work of the institution concerned. The issue of audit fees is a topical issue that forced the National Board of Accountants and Auditors in Tanzania to come up with a range of audit fees depending on the seniority of the audit staff member.

Sections 143 (2) of the Constitution of the URT states clearly the audit mandate and responsibilities of Controller and Auditor General; (a) CAG shall ensure that the use of any moneys proposed to be paid out of the Consolidated Fund has been authorized and that the funds shall be paid out in accordance with the provisions of Article 136 of the Constitution and where he is satisfied that those provisions shall be duly complied with, then he shall authorize payment of such moneys that the use of any fund proposed to be paid (b) Also CAG shall ensure that all the moneys the payment of which has been authorized to be charged on the Consolidated Fund of the Government of the Untied Republic, or the moneys the use of which has been authorized by a law enacted by Parliament and which have been spent, have been applied to the purposes connected with the use of such moneys and that such expenditure has been incurred in accordance with the authorization for such expenditure; and (c) CAG is required by law to give audit report in respect of the Government at least once every year. Further to the above legal provisions of public sector auditing in Tanzania, the Public Audit act of 2008, the Public Finance Act of 2004, Public Audit Regulations, Standing Orders for Public service of 2009, and Government circulars give the NAOT mandate regarding public finance audit.

Table 1: Approved Audit fees by NBAA[2]

Audit Team Member	Larger Audit firm (rate per hr in TZS)	Medium audit firm (rate per hr in TZS)	Small Audit firm (rate per hr in TZS)
Partner	700,000-900,000	500,000-700,000	300,000-500,000
Senior Manager	500,000-700,000	300,000-500,000	200,000-300,000
Manager	300,000-500,000	200,000-300,000	100,000-200,000
Senior 1	200,000-300,000	100,000-200,000	50,000-100,000
Senior 2	100,000-200,000	50,000-100,000	30,000-50,000

[2] Rate approved by the NBAA during its 178th Ordinary meeting held on 27th June 2019.

Assistant	70,000-100,000	30,000-70,000	20,000-30,000	

Table 1 above depicts a range of audit fees for audit team members from partner to assistant audit member. The key question on these audit fees is; what are the determinants of these audit fees for the audit team members. This question tries to unveil key factors to be considered in pricing audit assignment. According to NBAA audit firms are grouped into three categories; large audit firms, medium and small audit firms. The expertise as a keynote of professionalism may differ from one category to another. Let us consider the big four; audit operations for the big four may require more expertise as compared to other categories, hence the high rate of audit fees. Thus, there is a need to come with the clear determinants of audit fees for all category of audit firms.

2.0 General Literature Review

2.1 Effect of Client Size on the determination of audit fees

The pricing of audit services has been an interesting issue for the researchers and different studies were conducted to explore the factors that determine the audit fee charged by an auditing firm. Knowing these factors is very significant for both client and the auditor and one of the most common premises for charging audit fees is the size of the client (Joshi et al., 2000).

The empirical findings of audit fee determinants in different countries show that audit fee structure is very complex. Researching relations between audited size, audited risk, and audit fees in most cases evidence the existence of such a relationship. However, these findings also show that the concern about audit independence impairment is derived from high audit fees and it shows its reasonability in doing so (Knechel, et al., 2008). This means that in certain cases investors can trust companies even these companies pay high fees to their auditors.

The client's size of the business has a significant positive relationship with audit fee in all studies while other attributes of a client such as the client's complexity of business and client's risk show mixed results.

Also, (Ahmed & Abdullah, 2016) argue that after considering auditee size, complexity, and risk; the key factor which is used to explain the audit fees is the identity of the auditor. A stream of studies has found evidence for the existence of premium paid to the large accounting firms (typically defined as the "Big Eight/Seven/Six/Five, "now the "Big Four").

In their study, (Musah & Alhassan, 2004) considered auditee into two groups; "small" and "large" companies, and further classified auditors as Big-Eight and non-Big Eight firms in determining audit fee. The purpose of such a classification was to divide the market into two segments with many

smaller suppliers and with big eight firms; among the firms, currently the big four firms operate all over the world. Also, (Simunic, 1980) assumed that the segment with a large number of suppliers would be more competitive, while other segments might "behave as a cartel", the researcher expected to see different audit fee pricing between those two segments. However, the result was not significant. The author's explanation for such findings was that "the big eight" firms enjoy economies of scale which are passed on as lower prices to auditee (Hassan et al., 2013).

2.2 The effect of Audit firm and Client size on auditing practices

Auditors' size affects audit fees because they employ experienced staff or experts with the highest university qualifications which attract higher staff remuneration. This factor is demonstrated by the multinational auditing firm (Ernest & Young, KPMG, PWC, and Deloitte) as compared to a local audit firm. The majority of studies indicate that big audit firms charge a premium in audit fees. However, in charging fees, the busy season is an important variable but it shows a significant relationship with audit fees (Musa et al., 2016).

More so, (Evana et al., 2013) assert that the auditor size (big firm versus non-big firm) is an important determinant of audit fee charged by the auditor, and it is documented that auditor size is a significant determinant of the audit fee. The auditing firms labeled as big ones are those operating globally and enjoy international recognition worldwide in providing audit services and they charge a high fee as compared to local firms. Also, (Chia et al., 2013) assert that audit firm size has a complex effect on audit price in the market for audit services, product differentiation, and scale economics to large firms. These big four audit firms charge premium amount due to the fact that they provide better quality audit services to their clients, condisdering that they invest heavly in training audit staff (Eshleman & Guo, 2014).

The size of the audit firm corresponds with the size of the client in auding practices. (Kanakriyah, 2020) assertes that large organizations are associated with more assets, product lines, transactions and operations which increase the auditors' workload as well as professionalism requirements and hence attract high audit fees. Also, (Mohammed & Saeed, 2018) and (Amran et al., 2021) emphasize on the impact of client's firm size to audit fees. It was asserted that large firms require deeper investigation from multinational audit firms which consume more time compared to smaller ones, this as a result increases audit fees. It is now clear that company's size in term of assets requires strong audit firm to conduct audit assignments. The more assets the company holds, the more demanding the audit process is, and therefore the higher fees charged from the audit service.

2.3 Effect of Client Complexities on Audit fees

The audit fee is determined based on characteristics specific to the auditing firm and client. However, engagement attributes are also significant determinants of audit fees; characteristics of the client include: the size of its business, the complexity of its business, and risk of liquidation also they contribute much to determining audit fees (Evana et al., 2013). In attempting to assess the relationship between audit fees and the complexity of balance sheet composition, many authors find considerable pieces of evidenceto suggest a positive association between audit fees and auditee complexity (Moazam et al., 2015).

Also, (Fleischer & Goettsche, 2012) document the importance of identifying key determinants of audit fees by using meta-analysis. In their study, they showed how audit fees determinant affects the pricing exercise of the audit engagements. The pricing exercise is also influenced by risks associated with audit engagement. As audit tests can not disclose all the possible misstatements in a financial statement; this forces audit firms to add a risk premium in their audit fee to avoid losses due to undiscovered errors and misstatements. Also, (Calderon et al., 2012) argue that the audit engagement complexities in terms of accruals, payables, and inventories often attract higher audit fees; thus, higher complexities correspond with higher audit fees. Also, (Kanakriyah, 2020) assertes that complex companies like those with many subsidiaries require additional audit efforts and therefore attract larger audit fees. It is common to understand that companies with foreign operations and a number of subsidiaries tend to be more complex than their peers with no subsidiaris nor foreign operations. On this note, the audit process is more complex which require a more rigorous undertaking and time consuming whict attracts high audit fees (Mohammed & Saeed, 2018).

2.4 Reputation/Recognition and audit fees

Audit fee studies, being a tool in assisting negotiation between auditors and clients they are regularly undertaken all over the world and essentially stem from the factors prevalent in the specific auditing/accounting environments. In this case, (Fleischer & Goettsche, 2012) reveal that international recognition, an affiliation of audit firms (big four firms), and profitability are significant determinants of audit fees. They indicate that ignorance of risk factors by the auditors may pose a serious threat to the fame and reputation of audit firms along with an indication of feeble legal regimes.

Also, (Musa et al., 2016) evidence that audit firms with huge reputations especially on the international level tend to charge higher audit fees than their counterparts with little reputation. Thus, it is evident that local audit firms tend to have lower audit fees than multinational audit firms. On the same focus, (Ahmed & Abdullah, 2016) asserted that among the most three important attributes that

determine audit fees are: the good reputation of the audit firm, the fact of being one of the big four, and the level of complexity of the audit engagement.

Also, (Mohammed & Saeed, 2018) expound that it is a common belief that audit firms with big brand names provide high quality audit services, and hence charge high audit fees. In additional, (Suwarno et al., 2020) point out that auditing outcome of non- big four firms are associated with high information assymetry in the resulting audited statements compared to audited statements produced by the big four. However, (Gunn et al., 2019) argued that auditor's reputation such as the big four is not necessarily associated with audit quality despite their high audit fees. It was found that in countries with high big four concentration, the big four's audit quality is lower for client's who are larger, own foreign operations and use the IFRS.

2.5 The impact of internal audit/controls and audit expenses on audit fees

It is argued that clients that have regular internal audits and effective internal controls tend to attract few audit fees from auditors and the reverse is true. For instance, (Munsif et al., 2011) in their study analyzed the behavior of audit fees in companies that have deficiencies in internal control. Studies have shown that the fees paid tended to decline when compared to other companies that continued reporting internal control deficiencies. Also, internal audit contributes to ingreducing fees because Auditors do not use much time in verifying a transaction. This fact reinforces the quality of internal control structures to help reduce auditing costs, showing that the internal audit quality affects a company's internal controls.

(Hazami-Ammar, 2019) affirms that internal controls play important role in lowering organization risk. Therefore the quality of internal control is an important factor in determining audit fees. Good internal control helps to lower organizational risk and boosts operational efficiency of an organization. Also, (Prasad et al., 2021) highlight a positive relationship between the use internal audit function (IAF) and external audit fees due. It is affirmed that the presence of weak internal controls calls for increased scope of external audit which raise audit fees. In the same vein, (Jha et al., 2021) suggested that auditors tend to charge high fees in companies with high corrupt level because of weak internal controls.

According to (Abubakar, 2016) a typical audit's enormous costs ranging from paying the auditors ranging from seniority to stationary and other related costs like travels and communications influence audit fees determination. When auditors are determining how much to charge their clients, they always have in mind the costs incurred such that the audit fees charged cover not only such expenses but also leave a profit for the firm. (Bala et al., 2018) assert that audit fee are often determined by

costs involved in carrying out the audit assignments and therefore the higher the costs involved in carrying out the assignment the higher the audit fees.

Furthermore, (Niemi, 2002) reveals the importance of some specific factors in determining audit fees. Specific factors such as service costs, the estimated hours, and the difficulty to establish metrics or proxies that allow addressing other factors, such as the technical qualification of the auditors are very significant. Aspects related to the working risk and corporate governance levels are not explicitly included in the study, but they affect the cost of services to be provided, as well as the number of hours estimated for their execution.

2.6 Macroeconomic Factors (inflation) and audit fees determination

The change in macroeconomic variables such as inflation, foreign exchange, and Gross Domestic Product (GDP) has a direct bearing impact on the audit fees charged especially for multinational audit firms. (MohammadRezaei et al., 2019) through multivariate analysis reveal that audit fee is positively associated with an economic crisis. The economic crisis generally increases firms' bankruptcy and consequently audit risk. Hence, auditors are more likely to respond to this increased risk through increasing audit fees. Also, (Albert & Otete, 2018) asserted that unstable foreign exchange rates usually influence audit fees especially for fees charged by the big four audit firms. Also, high inflation and hostile macroeconomic variables often culminate into higher inflation rates. Therefore, economic stability is more inductive for good audit fees than unstable economic variables such as inflation, interest rates, and GDP. Also, (Chen et al., 2019) assert that macroeconomic environment plays a role in the determinatio of audit fees. It was found that macroeconomic uncertainities give firms an advantages in the negotiation of audit fees.

2.7 Review of related Empirical Literature

The service of audit has an inelastic demand since it is a requirement for most entities to present audited financial statements, and therefore auditors operate in a market where they are at liberty to charge fees that are fair to them. However, a study conducted by (Michas, 2011) reveals that many auditors seem not to grasp how best to meticulously determine their audit fees and that is why each auditor seems to have their price range.

(Hassan & Naser, 2013) conducted a study to examine the factors influencing audit fees paid by non-financial companies listed in the Abu-Dhabi stock exchange. Data were collected from annual and corporate governance reports. The study findings reveal a direct relationship between audit fees and each of the corporate size, business complexity, and audit report lag variables. Also, it was further revealed that audit fees are not influenced by the company's profitability, risk, and status of the firm.

Also, (Santhosh & Ganesh, 2020) aim to understand important elements which affect the payment of audit remuneration. After collecting data from thirty firms for the period 2015 to 2018, the authors documented a minimum relation among audit remuneration, firm's magnitude, and profitability. It was also reported a negative correlation between audit risk and audit remuneration.

Audit fees determinant in different ownership structure was studied by Ask and Holm (2013). The researchers aimed to examine whether the audit fee determinants diverge for ownership structure. The findings indicate that audit fees are explained by accounting complexities, business complexities, and assurance. The results also document that ownership structure does not influence the monitoring need. Also, (Castro, Peleias, et al., 2015) and (Kimeli, 2016) revealed a positive relationship between audit fees and variables size, client's complexity, reputation, and size of the auditor. In addition to the above findings, (Rewczuk & Modzelewski, 2019) examined the determinant of audit fees in Poland by collecting data from financial statements of 111 companies listed in the Warsaw stock exchange in 2018. The study findings revealed a positive relationship between audit fees and company size, measures of complexity, and the fact that a company is audited by the big four accounting firms.

The above empirical literature review presents findings in most cases from private firms and mostly listed ones. Little attention has been directed to public firms and unlisted firms. The current study tries to shed the gap by examining the determinant of audit fees for public institutions to help decision-makers to be able to pay appropriate fees for the audit assignment/engagement. In Tanzania, the public audit is conducted yearly for central and local governments, including public institutions and agencies. Knowing audit assignment as inevitable in public and private operations, it is very important to understand clearly the determinant of audit fees for public institutions due to complexity in operations.

3.0 Methodology and Measurement of the study variables

3.1 Methodology

The study employed secondary data collected from the following public institutions: Bank of Tanzania (BOT), Capital Markets and Securities Authority (CMSA), Tanzania Insurance Regulatory Authority (TIRA), Tanzania Electricity Service CompanyLimited (TANESCO), University of Dar es Salaam (UDSM), Muhimbili National Hospital (MNH), Tanzania Telecommunication Company Limited (TTCL), Tanzania Communication Regulatory Authority (TCRA) and Tanzania Tourist Board(TTB). The purposive sampling technique was used to ensure that only a relevant year period of five years from 2013 to 2018 is covered with the availability of data. For that purpose, only 10 public institutions were purposively selected for the current study. This sample was thought to be adequate in

giving a detailed perspective of the state of affairs of the variables under study over recent trends. The selection of the companies was attributed to the fact that all public entities receive three auditing firms for them to pick one among them from the Controller and Auditor General (CAG); signifying that the practices and outcomes possess a high degree of similarity.

3.2 Model Specification

The pooled data regression model was used in the analysis of data for this study. In this case, the pooled regression model is one type of model that has constant coefficients, referring to both intercepts and slopes. Pooled regression model fits the study because the behavior of the corporate data is the same for the given period of the study. In this model, researchers can pool all data and run ordinary least squares regression model.

$Y = \beta 0 + \beta 1Xit + \varepsilon it$

Where: Y is the dependent variable; β0 is constant; β is the coefficient of explanatory variables; Xit is the vector of explanatory variables, and εit is the error term (assumed to have zero mean and independent across the period).

$AFit = \beta 0 + \beta 1CSit + \beta 2ASit + \beta 3Cit + \beta 4Rit + \beta 5IAit + \beta 6Eit + \beta 7MVit + eit$

Whereas: AFit represents audit Fees in year t; CS for client Size;AS for auditor size; C for Complexities; R for reputation; IA for internal audit; E for audit expenses and MV for macroeconomic variables and B0 for Intercept (constant).

3.3 Null hypothesis to be tested

The following hypotheses were tested by using regression analysis

Ho1: There is no significant effect of client size on audit fees;

Ho2: There is no significant effect of auditor size on audit fees;

Ho3: There is no significant effect of complexities on audit fees;

Ho4: There is no significant effect of reputation/recognition on audit fees;

Ho5: There is no significant effect of internal audit/controls on audit fees;

Ho6: There is no significant effect of audit expenses on audit fees;

Ho7: There is no significant effect of macroeconomic variables on audit fees.

Table 2: Measurement of the Variables

NO	Variable	Measurement

1	Client Size	Total assets of the public institutions (Bratten et al., 2018)
2	Auditor Size	Total assets of the audit firms (Hay, 2013)
3	Complexities	The total value of inventory and accruals of the public institutions (Castro, Peleias, et al., 2015).
4	Audit expenses	The total of all costs incurred in carrying out the audit (Yvonne, 2015).
5	Internal audits/controls	The frequency of internal audits done in a given period (Krane & Eulerich, 2020)
6	Reputation/Recognition	The value or opinion attached to the audit firms by independent raters (Craswell et al., 1995)
7	Macroeconomic variable-Inflation	The annual national general increase in the price of goods and services (Fleischer & Goettsche, 2012)
8	Audit fees	The annual amount spent by public institutions on auditing services (Fleischer & Goettsche, 2012)

4.0 DATA ANALYSIS AND PRESENTATION OF THE FINDINGS

4.1 DATA ANALYSIS AND DIAGNOSTIC TESTS

Table 3: Linearity Test

Null Hypothesis: AF has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.214615	0.0000
Test critical values: 1% level	-3.313324	

5% level	-2.678412
10% level	-2.364403

*MacKinnon (1996) one-sided p-values.

Source: E-View 9

The results in the test are clear that the variables possessed a high degree of linearity because the values of the probability imply that $p<0.05$ which is certain that there is a significant outcome. Therefore, the variables possess a linear relationship feature which allows further regression analysis to be performed.

4.2 Multicollinearity Test

The test was performed specifically to determine whether the variables possessed the multicollinearity feature. This test is very important as it depicts a clear picture of the variable prediction strength. Independent variables are said to be weak in predicting dependent variables if there is a strong relationship among the variables. Multicollinearity occurs when independent factors correlate themselves which affects predicting capacity for the dependent factor. For the multivariate regression model, independent factors are required to be independent to be able to predict dependent factors accurately. One of the methods used to make a diagnosis for multicollinearity is the correlation matrix. The correlation matrix is used to assess the correlation among independent factors. The general rule for the correlation matrix is; the lower the correlation the lower the effect of multicollinearity and the higher the correlation the higher the effect of multicollinearity. This implies that independent variables need to be independent, however, when it appears that they have a relationship, such association must be weak or lower to reduce negative influence on making the prediction.

Table 4: Multicollinearity Test

	AF	CS	AS	C	R	E	IA	MV
AF	1.000000							
CS	0.263246	1.000000						
AS	0.307453	-0.204085	1.000000					
C	0.216474	0.156373	0.126461	1.000000				
R	0.146372	-0.117573	0.273622	0.124646	1.000000			

E	0.325463	0.256739	0.057643	0.274731	-0.563263	1.000000		
IA	-0.103847	-0.100563	-0.174293	-0.254534	-0.463631	0.111352	1.000000	
MV	-0.354623	-0.126346	-0.17352	-0.163634	-0.316652	0.246323	-0.453522	1.000000

Source: E-View 9

The results indicate that audit expenses as the predicting variable consists of a higher correlation value compared to another independent variable. However, though the correlation is positive, still the coefficient is small which entails that there is no multicollinearity effect. With this analysis, it is clear that all independent variables have no multicollinearity.

4.3 Autocorrelation Test

Table 5: Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	11.072254	Prob. F(2,75)	0.0008
Obs*R-squared	14.35071	Prob. Chi-Square(2)	0.0006

Source: E-View 9

It is certain that the variables did not possess an autocorrelation problem since the findings on the test show that the serial correlation has been removed. This is evident with the fact that the values of Chi-square and the probability of F-statistics are all positive with significant effects with the coefficients being less than 0.05 respectively.

4.4 Descriptive Analysis

This was performed to describe the relationship between study variables based on the results from the mean and standard deviation with their implications. On that note, table 6 below presents the results.

Table 6: Descriptive Analysis

Variable	Mean	Std. Dev.	Min	Max
AF	0.1041	0.12546	-0.35	0.63
CS	0.3154	0.13564	-1.21	4.46
AS	1.4536	1.37845	4.16	10.27
C	0.2564	0.46564	0.09	0.91
R	1.2535	0.35352	0.5	1
E	2.1646	1.16522	2.83	9.45
IA	1.5748	1.36463	1.73	11.16
MV	1.7463	1.56325	2.88	3

Source: E-View 9

Descriptive analysis findings indicate that audit expense as a predicting variable has the most influence on audit fees compared to other variables. The analysis implies that the audit fee charged in public institutions in most cases is influenced by audit expenses as acknowledged by Ahmed and Abdulla (2016).

4.5 Regression Analysis

In this study, the regression analysis was conducted to assess the influence of independent variables on the dependent variable. Therefore, the results for this analysis are presented in Table 7 below.

Table7: Regression Analysis

Variable	Coeff.	Std Error	T.statistics	Probability
CS	-0.65013872	0.143836	-4.52	0.026
AS	1.80065298	0.612467	2.94	0.018
C	-0.084098982	0.1274227	-0.66	0.539
R	-0.411857683	0.1361513	-3.025	0.031
E	0.236586755	0.1156338	2.046	0.049
IA	0.123935503	0.1064738	1.164	0.153
MV	0.197010026	0.1846392	1.067	0.135
Const.	0.260171076	0.1586409	1.64	0.106

Source: E-View 9

The findings on regression analysis depict that out of seven predicting variables, only four which were client size, auditor size, reputation, and audit expenses were found positive and statistically significant with $p<0.05$. However, the other predicting variables which were internal audit/controls, macroeconomic variables, and complexities were found to be statistically insignificant in predicting audit fees. The implication of the results is that audit fee for public institutions in Tanzania are mostly influenced by client size, reputations, auditor size, and audit expenses.

4.6 Discussion of the Results

The results of the study reveal that client size has a positive significant effect on audit fees ($P<0.05$). This implies that audit fee in public institutions in Tanzania is positively influenced by the client size (see also Castro, Peleias & Silva., (2015) and Bratten, Causholli and Sulcaj ; 2018). It was further confirmed that audit expenses have a positive significant effect on the determination of audit fees ($p<0.05$). These findings imply that organization audit fee is a function of the audit expenses as

supported by Evan (2013). Also, the study findings reveal that auditor size has a positive impact on the determination of audit fees ($p<0.05$). The findings imply that audit fees for public institutions are positively influenced by the auditor size as acknowledged by Castro, Peleias & Silva (2015). It was further found that reputation/recognition of the auditor as the predicting variable possessed a significant effect on audit fees ($p<0.05$). This implies that audit fee in public organizations in Tanzania is influenced by the reputation /recognition of the auditor as supported by (Chia, Lapsley and Lee., 2007). The remaining variables are insignificant in the determination of the audit fee as confirmed by the results of the regression analysis ($P>0.05$).

In a normal view, government organizations are perceived as complex entities in running their operations. In Tanzania, government organizations are positioned in such a way that they tend to foster audit fees to rise due to the complexity of operations. This has been also considered as an advantage to the private auditing firms when they get contracts to audit public entities that their complexities serve as an opportunity to earn significant income through audit fees as compared to other private organizations.

5.1 CONCLUSION AND RECOMMENDATIONS

Certainly, audit fees in public institutions are mostly determined by client size, auditor size, reputation/recognition, and audit expenses as confirmed by regression analysis. Despite this analysis and the given guidelines by the regulator, still this is a persisting problem because the audit fees are charged continuously to consider elements that are of no relevance. According to this study, some factors such as reputations, complexities, size of the auditor, and others are statistically insignificant in determining audit fees. This study directs alarm to a regulator of the audit engagement in Tanzania to point out the key factors that need to be considered in pricing audit assignments. The guideline issued by the NBAA on its 178th Ordinary meeting held on 27th June 2019 approved various remuneration rates for the audit team member. It is not well known whether the regulator considered client size, reputation/recognition, and audit expenses in setting remuneration rates. It is very important to come up with key determinants to avoid over-pricing of audit assignments. This has been fostering charges to be high in audit fees because firms have open-loop to use their internal criteria and justifications which are of no relevance on professionalism grounds.

5.2 Policy Implication

The study results reveal that audit fee in government entities is influenced by client size, audit size, reputation/recognition, and expenses. This study suggests that a new audit fee pricing strategy can be installed and harmonized through the Government policy and regulations. It is advised that the

Government should cluster its entities through clear policy in terms of their size and insert appropriate fees which may be included in each cluster depending on the size. This automatically may foster the realization of the cost reduction pattern and practice as well reduction, and finally elimination of malpractices in the auditing process and practice. This is because there are Government entities that are less and some with a minimal size that do not require large audit firms for assignment engagement.

6.0 REFERENCES

Abubakar, A. (2016). Determinants of corporate social responsibility of listed deposit money banks in Nigeria. *Ahmadu Bello University*.

Ahmed, R. A., & Abdullah, H. A. (2016). A Proposed Framework of Audit Fees Determinants in Kurdistan Region. *European Journal of Business and Management*, *8*(12), 1–12.

Albert, C. P. A., & Otete, R. (2018). *From the Ugandan Insurance Sector*. *6*(9), 52–68.

Amran, A., Susanto, E., Kalsum, U., Fitrianti, F., & Muslim, M. (2021). The Effect of Company Complexity and Company Size Against Audit Fees. *Point of View Research Accounting and Auditing*, *2*(1), 59–65.

Ask, J and Holm, M.L.J (2013) "Audit fees Determinant in different ownership structure

Bala, H., Amran, N. A., & Shaari, H. (2018). Audit Fees and Financial Reporting Quality: A Study of Listed Companies in Nigeria. *International Review of Management and Business Research*, *7*(2), 483–490.

Bratten, B., Causholli, M., & Sulcaj, V. (2018). *Overseeing the external audit function: Evidence from recent audit committee voluntary disclosures*.

Calderon, T. G., Wang, L., & Klenotic, T. (2012). Past control risk and current audit fees. *Managerial Auditing Journal*, *27*(7), 693–708. https://doi.org/10.1108/02686901211246813

Castro, Lima, D., Bottaro, Walther, Peleias, Ricardo, I., Silva, D., & Peres, G. (2015). Determinants of audit fees: A study in the companies listed on the BM&FBOVESPA, Brazil. *Revista Contabilidade e Financas*, *26*(69), 261–273.

Castro, W. B. de L., Peleias, I. R., & Silva, G. P. da. (2015). Determinants of audit fees: A study in the companies listed on the BM&FBOVESPA, Brazil. *Revista Contabilidade & Finanças*, *26*, 261–273.

Chen, J., Duh, R.-R., Wu, C.-T., & Yu, L.-H. (2019). Macroeconomic uncertainty and audit pricing. *Accounting Horizons*, *33*(2), 75–97.

Chia, Ming, Y., Lapsley, Irvine, Lee, & Wah, H. (2007). Choice of auditors and earnings management during the Asian financial crisis. *Managerial Auditing Journal*, *22*(2), 177–196.

Chia, Ming, Y., Lapsley, Irvine, Lee, Wah, H., Zaman, Mahbub, Chayasombat, Aravee, Mitra, Santanu, Hossain, Mahmud, Deis, R., D., Knechel, Robert, W., Niemi, … Whittington, G. (2013). Audit pricing and product differentiation in small private firms: Evidence from Thailand. *Managerial Auditing Journal*, *22*(2), 240–256.

Chia, Y. M., Lapsley, I., & Lee, H.-W. (2007). Choice of auditors and earnings management during the Asian financial crisis. *Managerial Auditing Journal*, *22*(2), 177–196.

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.

D, R. O., Ph, U., Izedonmi, & I, P. F. O. (2015). An Empirical Investigation of Audit Fee Determinants in Nigeria. *International Journal of Business and Social Research*, *5*(8), 48–58.

Elliott, J. A., Ghosh, A., & Peltier, E. (2013). Pricing of risky initial audit engagements. *Auditing: A Journal of Practice & Theory*, *32*(4), 25–43.

Eshleman, J. D., & Guo, P. (2014). Do Big 4 auditors provide higher audit quality after controlling for the endogenous choice of auditor? *Auditing: A Journal of Practice & Theory*, *33*(4), 197–219.

Evana, Einde, Farichah, Farichah, Mirfazli, Edwin, Idris, Zahron, Agus, Tudor, Tiron, & Adriana. (2013). An Analysis of The Effect of Corporate Characteristics and Auditor Characteristics on Audit Fee. *International Journal of Economics, Business and Entrepreneurship*, *2*(1), 13–26.

Fafatas, A., S., Sun, Jialin, & Kevin. (2010). The relationship between auditor size and audit fees: Further evidence from big four market shares in emerging economies. *Research in Accounting in Emerging Economies*, *10*, 57–85.

Fleischer, R., & Goettsche, M. (2012). Size effects and audit pricing: Evidence from Germany. *Journal of International Accounting, Auditing and Taxation*, *21*(2), 156–168.

Gunn, J. L., Kawada, B. S., & Michas, P. N. (2019). Audit market concentration, audit fees, and audit quality: A cross-country analysis of complex audit clients. *Journal of Accounting and Public Policy*, *38*(6), 106693.

Hassan, Mohammad, Yousef, Naser, & Kamal. (2013). Determinants of Audit Fees: Evidence from an Emerging Economy. *International Business Research*, *6*(8), 13–25.

Hassan, Y., & Naser, K. (2013). *Determinants of audit fees: Evidence from an emerging economy*.

Hay, D. (2013). Further evidence from meta-analysis of audit fee research. *International Journal of Auditing*, *17*(2), 162–176.

Hazami-Ammar, S. (2019). Some evidence on the impact of internal audit on external audit fees: Data provided by the Institute of Internal Auditors are subject to restrictions. *Journal of Corporate Accounting & Finance*, *30*(2), 64–81.

Jha, A., Kulchania, M., & Smith, J. (2021). US political corruption and audit fees. *The Accounting Review*, *96*(1), 299–324.

Joshi, P. L., Al-bastaki, & Hasan. (2000). Determinants of Audit Fees: Evidence from the Companies Listed in Bahrain. *International Journal of Auditing*, *138*(November 1999), 129–138.

Kanakriyah, R. (2020). Model to determine main factors used to measure audit fees. *Academy of Accounting and Financial Studies Journal*, *24*(2), 1–13.

Kimeli, E. K. (2016). *Determinants of audit fees pricing: Evidence from Nairobi Securities Exchange (NSE)*.

Knechel, Robert, W., Niemi, Lasse, Sundgren, & Stefan. (2008). Determinants of Auditor Choice: Evidence from a Small Client Market. *International Journal of Auditing*, *12*(1), 65–88.

Knechel, W. R., Niemi, L., & Sundgren, S. (2008). Determinants of auditor choice: Evidence from a small client market. *International Journal of Auditing*, *12*(1), 65–88.

Krane, R., & Eulerich, M. (2020). Going global: Factors influencing the internationalization of the internal audit function. *Journal of International Accounting, Auditing and Taxation*, *41*, 100353.

Michas, P. N. (2011). The importance of audit profession development in emerging market countries. *The Accounting Review*, *86*(5), 1731–1764.

Mitra, S., Hossain, M., & Deis, D. R. (2007). The empirical relationship between ownership characteristics and audit fees. *Review of Quantitative Finance and Accounting*, *28*(3), 257–285.

Moazam, Muhammad, Corresponding, & Khan. (2015). Quality and Audit Fees: Evidence from Pakistan. *Research Journal of Finance and Accounting*, *6*(7), 1–12.

MohammadRezaei, F., Moosaee, M., & Salahi, H. (2019). Economic Crisis and Audit Fees. *Quarterly Financial Accounting*, *11*(43), 27–46.

Mohammed, N. H., & Saeed, A. (2018). Determinants of audit fees: Evidence from UK alternative investment market. *Academic Journal of Nawroz University*, *7*(3), 34–47.

Munsif, Vishal, Raghunandan, K., Rama, V., Dasaratha, Singhvi, & Meghna. (2011). Audit fees after remediation of internal control weaknesses. *Accounting Horizons*, *25*(1), 87–105.

Musa, Usman, & Abubakar. (2016). *DETERMINANTS OF CORPORATE SOCIAL RESPONSIBILITY OF LISTED DEPOSIT MONEY BANKS IN NIGERIA BY Abubakar ABDU M.Sc/Admin/33538/12-13 BEING A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY ZARIA, IN PARTIAL FULFILLMENT OF*. 10–20.

Musah, & Alhassan. (2004). Determinants of Audit fees in a Developing Economy: Evidence from Ghana. *International Journal of Academic Research in Business and Social Sciences*, *7*(11).

Niemi, L. (2002). Do firms pay for audit risk? Evidence on risk premiums in audit fees after direct control for audit effort. *International Journal of Auditing*, *6*(1), 37–51.

Prasad, N., Hay, D., & Chen, L. (2021). Internal audit use, earnings quality and external audit fees. *Pacific Accounting Review*.

Rewczuk, K., & Modzelewski, P. (2019). Determinants of audit fees: Evidence from Poland. *Central European Economic Journal*, *6*(53), 323–336.

Santhosh, N., & Ganesh, R. S. (2020). Determinants of Audit Fees: Evidence from Companies Listed in the Industrial Sector of Muscat Securities Market. *Journal of Critical Reviews*, *7*(3), 33–36.

Simunic, D. A. (1980). The Pricing of Audit Services: Theory and Evidence. *Journal of Accounting Research*, *18*(1), 161. https://doi.org/10.2307/2490397

Suwarno, A. E., Anggraini, Y. B., & Puspawati, D. (2020). Audit Fee, Audit Tenure, Auditor's Reputation, and Audit Rotation on Audit Quality. *Riset Akuntansi Dan Keuangan Indonesia*, *5*(1), 61–70.

Yvonne, U. (2015). *Integrated financial management information system and public financial management in Rwanda* [PhD Thesis]. Mount Kenya University.