

**DETERMINANTS OF AUDIT FEES FOR LISTED FIRMS IN KENYA**

**BY**

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## **DECLARATION**

I, the undersigned, declare that this research project is my original (except where acknowledged by way of citation) work and that it has never been submitted and approved for the award of any degree by this or any other University.

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## **DEDICATION**

I dedicate this work to my late aunt, Sibilina Ego, who prepared me on my first day to school as a toddler. The value of hard work, determination and the importance of education that you implanted in me is what has guided me this far. As long as I live your counsel will always guide me.

Rest in Peace Aunt.

## **ABSTRACT**

The objective of the study was to find out the determinants of audit fees for firms listed in the NSE. This was informed by the fact that most research on audit fee models has been done on developed countries while little published research is available on developing countries like Kenya. The significance of certain variables changes according to each country's characteristics and period of analysis; they recommended that models be periodically revised (Hay et al., 2006). Deductive approach, where a study begins with developing theory and hypotheses, was used in the study. After which the author chose data and tested the hypotheses. Data was collected on listed firms' annual reports covering the period from 2008 to 2012. The period chosen was sufficient to obtain meaningful trend patterns on audit fees for listed firms. The annual reports were obtained from the respective company websites and the Capital Markets Authority. The choice of NSE firms was informed by the availability of data on listed firms due to legal requirements which require the firms to file annual reports with the Capital Markets Authority. Out of the 60 listed firms targeted by the study, 48 firms were responsive representing a response rate of 80%. It was noted that the audit market for listed firms is dominated by the Big 4 firms and most companies (72.9%) financial years end in December. It was also noted that some firms did not comply with the CMA Act on filing annual reports with the authority. Multiple regression analysis and correlation analysis were used to analyze the data in order to test the research objective. The multiple linear regression model's coefficient of correlation (R) is 0.857 and coefficient of determination ( $R^2$ ) is 0.735 implying that 73.5% of the variation in audit fees can be explained by the variables in the study, while 26.5% of the audit fee variance is explained by the error term and other factors. The model is statistically significant as indicated by the F value of 63.354 and significance value of 0.000. The results of the study show that audit fees; auditor experience; auditor reputation; Big 4 status; client size; client complexity and time lag are important factors in determining audit fees for listed firms in Kenya due to the positive relationship between these variables. This was consistent with both the author's expectations and the results of previous studies. A negative relationship was found between: audit fees; size of the audit firm and client profitability. This contradicted the author's expectations and previous studies. The results, however, did not support any relationship between audit fees; client risk and the reporting season.

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## **ABBREVIATIONS**

AICPA – American Institute of Certified Public Accountants

CMA – Capital Markets Authority

CPA – Certified Public Accountant

EY – Ernst and Young

ICPAK – Institute of Certified Public Accountants of Kenya

IFAC – International Federation of Accountants

ISA – International Standards on Auditing

KASNEB - Kenya Accountants and Secretaries Examination Board

LN – Natural Logarithm

NSE – Nairobi Stock Exchange

PWC – Pricewaterhouse Coopers

ROA - Return on assets

ROCE - Return on capital employed

ROE - Return on equity

ROI - return on investment

UK – United Kingdom

USA – United States of America

## **CHAPTER ONE: INTRODUCTION**

This chapter covers the background of the study; the Problem Statement and research questions of the study; Objectives of the study and the Value of the Study.

### **1.1 Background**

According to Gray and Manson (2008) an audit is an investigation or search for evidence to enable an opinion to be formed on truth and fairness of financial and other information by a person or persons independent of the preparer and persons likely to gain directly from the use of the information, and the issue of a report on that information with the intention of increasing its credibility and therefore its usefulness.

Audits involve testing transactions, interviewing and observing the client, and evaluating the internal controls and systems used within the corporation. The development of modern auditing profession is stimulated by the development of economy and related industries, specifically, the Industrial Revolution in the 18th century and the separation between ownership and management created demand for the practice of modern auditing. Additionally, globalization and the development of stock markets are also motivations for the further strengthening of the audit profession. (Hayes *et al*, 2005).

#### **1.1.1 Audit Fees**

Audit fees refer to the remuneration payable to an auditor for audit services rendered. When entering into negotiations regarding professional services, a professional accountant in public practice may quote whatever fee deemed to be appropriate. Nevertheless, there may be threats to compliance with the fundamental principles arising from the level of fees quoted. For example, a self-interest threat to professional

competence and due care is created if the fee quoted is so low that it may be difficult to perform the engagement in accordance with applicable technical and professional standards for that price (ICPAK, 2006). Low audit fees can restrain audit firms, by restricting compensation (to audit staff). Part of the problem is that many clients fail to recognize the intrinsic value of an audit, regarding it purely as a compliance exercise (Izma, 2011). Isa, 210 para A23, specifies that the audit engagement letter must provide the basis of charging fees by the auditor (IFAC, 2012).

### **1.1.2 Factors influencing Audit Fees**

Audit fee is affected by Audit firm attributes (like size, reputation, experience, competition, industry specialization and whether it is a big four) or by the client's company characteristics (auditee attributes like size, complexity, risk, and profitability). High audit fees will be charged by big 4 audit firms, which are normally big in terms of staffing and geographical coverage, with high reputation gained from several years' experience and industry specialization. Competition amongst audit firms is however expected to lower audit fees charged (Palmrose, 1986; Simon and Taylor, 2002).

Big companies having complex group structures and associated with high risk operations and high profitability will be charged higher audit fees relative to smaller simple structured companies with less risky and less profitable clients in the industry (Francis and Simon, 1987, Craswell and Francis, 1999).

### **1.1.3 Nairobi Securities Exchange**

Nairobi Stock Exchange was established in 1954 as a voluntary association of stockbrokers registered under the Societies Act. At this time Kenya was still a British

colony and the business of share trading was restricted only to the resident European Community though Africans and Asians were not permitted to deal in securities. The NSE in 2006 introduced an Automated Trading System (ATS) which ensures that orders are matched automatically and are executed on a first come first serve basis. The ATS has now been linked to the Central Bank of Kenya and the CDS thereby allowing electronic trading of Government bonds. Currently there are 62 listed firms at the NSE, out of which 17 are financial (Banking and Insurance firms) while the remaining 45 are non-financial firms spreading across different segments, spread across through: agricultural; automobiles; commercial and services; construction and allied; energy and petroleum; Investment; Manufacturing and allied and lastly, Growth enterprise segments. ([www.nse.co.ke](http://www.nse.co.ke)).

#### **1.1.4 Kenyan Audit Environment**

The Kenyan audit industry is regulated by the Institute of Certified Public Accountants of Kenya (ICPAK) which is established by Part II of the Accountants Act of 2008. The institute is charged with the following tasks: a) promote standards of professional competence and practice; promote research into the subject of accountancy and finance and related matters; promote the international recognition of the Institute; advise the Examination Board on matters relating to examinations; advise the Minister on matters relating to financial accountability in the economy; carry out any other functions prescribed for it under any of the other provisions of this Act or any other written law; and to do anything incidental or conducive to the performance of any of the preceding functions. To achieve its role ICPAK has developed a code of professional ethics to guide its members remain professional. In recognition of the potential threat of audit fees on

auditor independence, Section 240.1 of the code states “a self-interest threat to professional competence and due care is created if the fee quoted is so low that it may be difficult to perform the engagement in accordance with applicable technical and professional standards for that price” (ICPAK, 2006). To curb this the code: prohibits charging of contingent fees; prohibits paying and receiving referral commissions; the auditor to make the client aware of the terms of the engagement and, in particular, the basis on which fees are charged and which services are covered by the quoted fee and assigning appropriate time and qualified staff to the task.

Currently there are 2013 there are 901 audit firms in Kenya with 709 firms located in Nairobi. As of 2001, the distribution of ICPAK membership in the economy is as follows: public practice 40%; commerce and industry 50%; and other including public sector and academia, 10%. The ICPAK believes that the number of qualified accountants needed for today’s Kenyan economy ranges as between 6,000 and 7,000 (as of 2001). Many companies meet this large shortfall in supply by employing nonqualified persons in accounting positions (World Bank, 2001; ICPAK Directory).

## **1.2 Research Problem**

Audit services are demanded as a monitoring mechanism because of the potential conflicts of interest between as well owners and managers as owners and other different classes of security holders (DeAngelo, 1981a). This means that auditors are used as a mechanism to enhance credibility of the financial statements. The willingness of auditors to report a breach depends on, for example, the economic importance of the client. Since auditors operate in a competitive market and audit quality is difficult to observe, they might have some incentives to reluctantly give in to client pressure and do not report a

discovered breach hence compromising their independence (Craswell et al., 1995; Francis, 2004). When auditors' independence is compromised their value as assurance providers is eliminated (Knechel et al., 2007).

Audit fees is affected by audit company attributes (like size, reputation, experience, competition, industry specialization and whether it is a big four) or by the client's company characteristics (auditee attributes like size, complexity, risk, and profitability) (Joshi and Al-Bastaki, 2000; Hay et al., 2006; Bedard and Johnstone, 2010). The auditing market and its audit fees is a subject studied mainly in developed economies, while the audit services market in emerging economies has been given limited attention. Hay et al., (2006) conducted a meta-study examining possible determinants of the amount of audit fees in the last 25 years (1977-2002). Of the 88 research papers covered in their analysis, only 6 were related to auditing activity in emerging market countries, while 45 were related to United States' market. Musembi (2011) analyzed the relationship between audit fees and board characteristics among listed non-financial firms in Kenya. The study found that audit fee is positively correlated to the board characteristics (diligence, expertise and size). From above, most research has been done on developed countries while little published research is available on developing countries like Kenya. Hay et al., (2006) conclude that the significance of certain variables changes according to each country's characteristics and period of analysis; they recommended that models be revised periodically. The researcher analyzed financial reports of listed companies in the NSE to determine the factors affecting audit fees in Kenya.



The study therefore sought to answer the following questions: (i) what are the audit firm's and clients' factors affecting audit fees determination in Kenya? and (ii) what is the correlation between audit fees and the different factors determining audit fees?

### **1.3 Research Objective**

This study sought to find out the factors determining audit fees arising from both client and audit firm characteristics by analyzing the listed companies at the NSE.

### **1.4 Value of the Study**

This study will be useful in the following ways; *first* it will enable the management of Kenyan Companies and the Audit Firms to have a clear understanding of the determinants of Audit fees.

*Secondly*, the Institute of Certified Public Accountants of Kenya (ICPAK) will benefit from the study by identifying audit fee determinants that have a threat to auditor independence in Kenya and as a result develop enhanced ethical guidelines to minimize the threat.

*Thirdly*, the government through consultations with regulatory bodies such as CMA and ICPAK, will initiate laws to safeguard the accounting practice in Kenya to guarantee accurate reporting by Kenyan firms.

*Finally*, the Academia will benefit by having a reference point in future research as this research adds to the existing audit fee literature, also potential areas for further research on matters related to audit fees in the Kenya are pointed out.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0 Introduction**

This chapter covers the theoretical review of auditing, an empirical review of factors affecting audit fees and lastly a summary of literature review.

### **2.1 Definition and Objective of an Audit**

Auditing is the accumulation and evaluation of evidence about information to determine and report on the degree of correspondence between the information and established criteria (Arens and Loebbecke, 2000). According to Gray and Manson (2008) an audit is an investigation or search for evidence to enable an opinion to be formed on truth and fairness of financial and other information by a person or persons independent of the preparer and persons likely to gain directly from the use of the information, and the issue of a report on that information with the intention of increasing its credibility and therefore its usefulness.

ISA 200 states the objective of an audit of financial statements “is to enable the auditor to express an opinion whether the financial statements are prepared, in all material respects, in accordance with an identified financial reporting framework of other criteria” (IFAC, 2012)

#### **2.1.1 Theories of Auditing**

Hayes et al., 2005 identified four theories of Auditing, which explain the existence of auditing; Policeman theory; Lending Credibility Theory; Inspired Confidence theory and Agency theory.

### **2.1.1.1 The Policeman Theory**

This theory claims that the auditor is responsible for searching, discovering and preventing fraud. In the early 20th century this was certainly the case. However, more recently the main focus of auditors has been to provide reasonable assurance and verify the truth and fairness of the financial statements. The detection of fraud is, however, still a hot topic in the debate on the auditor's responsibilities, and typically after events where financial statement frauds have been revealed, the pressure increases on increasing the responsibilities of auditors in detecting fraud (Hayes et al. 2005).

### **2.1.1.2 The Lending Credibility Theory**

This theory suggests that the primary function of the audit is to add credibility to the financial statements. In this view the service that the auditors are selling to the clients is credibility. Audited financial statements are seen to have elements that increase the financial statement users' confidence in the figures presented by the management (in the financial statement). The users' are perceived to gain benefits from the increased credibility, these benefits are typically considered to be: that the quality of investment decisions improve when they are based on reliable information (Hayes et al. 2005).

### **2.1.1.3 The Theory of Inspired Confidence**

Hayes et al., 2005 quotes Limperg (1932) as pointing out that this theory addresses both the demand and the supply for audit services. The demand for audit services is the direct consequence of the participation of third parties (interested parties of a company) in the company. These parties demand accountability from the management, in return for their investments in the company. Accountability is realized through the issuance of periodic financial reports. However, since this information provided by the management may be

biased, and outside parties have no direct means of monitoring, an audit is required to assure the reliability of this information. With regard to the supply of audit assurance, Limperg (1932) suggests that the auditor should always strive to meet the public expectations.

#### **2.1.1.4 Agency Theory**

Watts and Zimmerman (1979, 1986a, 1986b) suggests that the auditor is appointed in the interests of both the third parties as well as the management. A company is viewed as a web of contracts. Several groups (suppliers, bankers, customers, employees etc.) make some kind of contribution to the company for a given price. The task of the management is to coordinate these groups and contracts and try to optimize them: low price for purchased supplies, high price for sold goods, low interest rates for loans, high share prices and low wages for employees. In these relationships, management is the *agent*, which tries to gain contributions from *principals* (bankers, shareholders and employees). The most prominent and widely used audit theory is the agency theory.

### **2.1.2 The Roles of Audit**

Wallace (1980) proposed three hypotheses for explaining the role of the audit in free and regulated markets: monitoring hypothesis, information hypothesis and the insurance hypothesis. The three provide an overview of the different roles auditing can take in different environments.

#### **2.1.2.1 The Monitoring Hypothesis**

The monitoring hypothesis assumes that when delegating decision-making power to one party, as suggested in agency theory, the agent is motivated to agree to be monitored if the benefits from such activities exceed the related costs. This hypothesis is applicable to

all co-operative relationships in any organization, not only relationships between owners and managers, but also in relationships between employers and employees, creditors and shareholders, different levels of management in companies and government and taxpayers (Wallace 1980 and 1987).

### **2.1.2.2 The Information Hypothesis**

Financial reporting was earlier seen to be central to the monitoring purposes, but since the 1960's the focus moved to needs and the provision of information to enable users to take economic decisions (Higson 2003). Therefore, an alternative or complement to the monitoring hypothesis is the information hypothesis. One argument regarding the demand for audited financial statements is that they provide information that is useful in investors' decision-making. Investment decision models in the finance literature value a company by calculating the net present value of future cash flows. For example, future cash flows have been observed to be highly correlated with financial statement information. Therefore, the audit is valued by investors as a means of improving the quality of financial information (Wallace 1980, 1987 and 2004).

### **2.1.2.3 The Insurance Hypothesis**

The auditor and the auditee are jointly and severally liable to third parties for losses attributable to defective financial statements. The ability to shift financial responsibility for reported data to an auditor lowers the expected loss from litigation or related settlements to managers, creditors and other professionals involved in the securities market. As potential litigation costs increase the insurance demand from managers and

professional participants for an audit can be expected to grow. (Wallace 1980, 1987, 2004)

Four possible explanations have been proposed as to why managers and other professionals look for insurance from auditors rather than an insurance company. First, the audit function is so firmly established in society that the decision of management not to hire an auditor would strongly imply negligence or fraud on the part of the managers of other professionals. Second, accounting firms have established in-house legal departments to defend them in professional liability suits. Third, the auditor facing a litigation suit is concerned about his/her reputation. Similarly, managers are concerned about their own reputation and the company's reputation as a well-run company. The insurance company on the contrary will make decisions on a litigation suit as a cost-benefit choice between out of court settlement of legal defense. Thus, the auditor and the manager share a common interest in properly considering the effect of the litigation on the reputation of the parties involved. Fourth, auditors have "deep pockets" relative to a bankrupt or failing company that cannot pay. (Wallace 1980, 1987, 2004)

## **2.2 Audit Fee Studies**

In this section the researcher reviews empirical literature related to audit fees. This will include the audit expectation gap and determinants of audit fees.

### **2.2.1 The Audit Expectation Gap and Audit Fees**

This describes the difference between the expectations of those who rely upon the audit reports about what auditors should do and what they are perceived to do (Gray and Manson 2008). Porter, 1993 identified the two components of the audit expectations gap:

First, a reasonableness gap. this arise because people expect more of audit than it can give in practical terms such as detecting instances of fraud, however small. Secondly, a performance gap, these results from what can be reasonably expected of auditors and what they are perceived to do. It's further split into two: (a) a deficient standards gap: this is a gap between what auditors can be reasonably expected to do and what the profession and the law asks them to do; (b) a deficient performance gap: this arises if the auditing profession has issued a standard which requires the auditors to observe and they fail to do so, then their performance is said to be deficient because they have not behaved in a manner consistent with professional auditing standards (Porter, 1993). Independent audit is an important factor to reduce audit expectation gap, because the investor and others are expecting more from auditor (Salehi, Mansoury and Azary, 2009). The audit expectation gap increases audit fees due to increased audit effort to bridge the gap (Wong, 2009). Wide audit expectation gap exists in the areas of auditor responsibility for fraud prevention and detection, maintenance of accounting records, freedom of the entity from fraud, and auditor judgment in the selection of audit procedures which can be addressed by more extensive audit reporting (long-form) which requires more audit work and as a result high audit fees will be charged to bridge the gap (Best, Buckby and Tan, 2001).

### **2.2.2 Client Attributes Affecting Audit Fees**

Client attributes include the characteristics of size, complexity, risk, and profitability of the firm being audited. Consistent with the theory on audit effort and litigation, audit fees tend to increase with an increase in the client's size (Simunic 1980), risk (Stice 1991), complexity (Hackenbrack and Knechel, 1997), and profitability (Hay et al., 2006).

### **2.2.2.1 Client Size**

The auditee size was found to be the most important factor that influences audit fees; it is usually measured by total assets, revenues, sales and number of employees of the Client Firm. The size of auditee has a direct impact on the auditors' work, and the time spent in the auditing process. Larger clients require more audit services than smaller clients, therefore more audit time is needed; hence we would expect that these large clients pay higher fees per dollar of size relative to smaller clients in the industry (Palmrose, 1986; Simon and Taylor, 2002). Hence, there is a positive relationship between audit fees and auditee size (Simunic, 1980; Low et al., 1990; Chan et al., 1993; Carson et al., 2004).

### **2.2.2.2 Client Complexity**

Complexity of the auditee can be measured by the number of branches and subsidiaries of the firm locally and internationally. It is argued that the more complex the client firm is, the greater the number and the more diversified the subsidiaries and operations are; which necessitate more audit work; therefore, audit firms charge higher audit fees. Sandra and Patrick (1996) showed that auditors of highly complex firms often charge high audit fees in examining and evaluating the firm's financial statements. According to them, foreign subsidiaries have to abide by a variety of legislative and proficient requirements for disclosure, which necessitates further audit testing, requiring more time and additional manpower to complete the audit process. This implies that the companies have to bear additional charges for audit work. Therefore, auditee complexity has a positive correlation with the audit fees (Simunic, 1980; Low et al., 1990; Chan et al., 1993; Firth, 1997; Butterworth and Houghton, 1995; Carson et al., 2004).



### **2.2.2.3 Client Risk**

Client risk is considered an important factor in determining the audit fees. Client risk measures the odds of an auditor issuing an unqualified judgment on materially misstated financial statements (AICPA, 1983). Sandra and Patrick (1996) used gearing (clients' debt ratio) and liquidity ratios to determine the client's risk. The client risk can be calculated by the following factors or ratios: current assets / total assets, long-term debt / total assets, income before tax / total assets (Carson et al., 2004; Joshi and Al-Bastaki, 2000). The most preferred risk measure is the Debt ratio. It is defined as the percentage of long-term debt to total assets. It measures the company's ability to pay off its incurred debt. If Debt Ratio is relatively high, the long-term financial structure of the client's firm will be unstable, and the firm may not be able to pay off its debt in a proper behavior which may lead to a lower credit rating. In general, risk (debt ratio) is higher for companies that have endured financial losses, leading to higher possibility of bankruptcy or decline in stock price, and therefore larger probability of legal actions against both the client and auditor. Auditors need to do more work to reduce any potential litigation against them. The more the work and time needed to finish the auditing process the greater the audit fee is. Therefore, Audit fees are positively associated with the clients' risk (Francis and Simon, 1987, Craswell and Francis, 1999).

### **2.2.2.4 Client Profitability**

Client's firm profitability is considered as an important indicator of management performance also its efficiency in allocating available resources. The auditee profitability can be known by finding the income or loss figure shown in the income statement (Firth, 1985; Simon et al., 1986; Chung and Lindsay, 1988; Low et al., 1990; WaresulKarim and

Moizer, 1996). Profitability ratios can be used as a measure of auditee profitability these include: return on assets (ROA), return on equity (ROE), return on capital employed (ROCE), return on investment (ROI). Companies reporting high levels of profits will be subject to precise audit testing of their revenues and expenses and this will result in higher audit fees (Joshi and Al-Bastaki, 2000). Most of the prior research done indicate that the amount of audit fees is significantly influenced by the profitability level of the client firm (Sandra and Patrick, 1996).

### **2.2.3 Audit Firm Attributes Affecting Audit Fees**

Audit fees increase with the Audit firm's Size (Francis, 1984; Palmrose, 1986), reputation (Larcker and Richardson, 2004, Gonthier and Schatt, 2007), experience, industry specialization (Pearson and Trompeter, 1994; Craswell et al., 1995; Cullinan, 1998) and whether it's one of the Big Four (Palmrose, 1986; Francis and Simon, 1987; Butterworth and Houghton, 1995). However, Audit fees decreases with the increase in competition, the greater the number of competitors the lower the audit fees are charged (Maher, Tiessen, Colson and Broman, 1992; Hay et al. 2006).

#### **2.2.3.1 Auditor Size**

Audit firm size is an important aspect of the audit firm that determines the audit fee. The Auditor Size is frequently measured based on the company's assets, market share and the number of employees. Choi, et al., (2010) investigated the relationship between office size, audit quality and audit pricing, and determined that office size is positively associated with audit quality, and that large offices charge higher audit fees and provide higher quality audits. Similarly Francis and Stokes (1984) and Palmrose (1986) explained the strong relationship between auditor fees and audit company size.

### **2.2.3.2 Experience**

The experience of the audit firm is considered an important attribute that influence determining the amount of audit fees. A study by Ferguson, et al. (2003) reveal that years of professional experience of the audit firm would increase the audit fees charged by the audit firm (Ferguson, et al., 2003).

### **2.2.3.3 Reputation**

Reputation of the audit office is the perception that some audit firms can provide higher quality auditing than others, which is one of the most important factors affecting the audit service pricing (Larcker and Richardson, 2004; Gonthier and Schatt, 2007). Firms which have invested in reputation capital (employee training programs and advertising) suggests a much higher success rate of the audit firm (Che-Ahmad and Houghton, 1996), and therefore it may be able to obtain a return on its investment through placing higher audit fees for their services. So this means that, the better the reputation of the audit firm the more is the demand on its audit services and the higher audit fees are.

### **2.2.3.4 Competition**

Competition among audit firms can be considered as one of the factors affecting the audit service pricing, this is consistent with the study of Maher et al. (1992), their study found that an increase in the number of Audit firms between 1977 and 1981 lead to a significant decrease in real audit fees. The results of this study were consistent with those of Hay et al. (2006) study which stated that the degree of competition between audit firms for market share is an important determinant of audit fees and is inversely proportional to audit fees.

### **2.2.3.5 Industry Specialization**

Studies on the effect of auditor industry specialization (expertise) on audit fees have found that an audit premium is received by auditors with a specialization in a particular industry (Pearson and Trompeter, 1994; Craswell et al., 1995; Cullinan, 1998). Also, researchers have examined other audit markets that are less dominated by the Big 6. Cullinan (1998) studied the effect of industry expertise on audit fees in a market in which the Big 6 firms have a relatively small market share, the US multi-employer pension plan market. The results of the study revealed that non-Big 6 firms with industry expertise received a fee premium over non-specialist firms, whereas Big 6 firms with larger market shares did not.

### **2.2.3.6 Big-Four**

Clients would pay more to the international big firms due to their Brand name and the higher audit quality provided. Simon et al., 1992 found that the Big Eight or Big Five, now the Big Four audit firms receive premium fees in many countries compared to non-Big Four (Palmrose, 1986; Francis and Simon, 1987; Butterworth and Houghton, 1995). The Big Four are the biggest audit firms in the world and due to their financial strength and expertise that they have they are able to provide higher quality audit. Studies comprising the United States of America audit market supported the idea that big international auditing companies (Big-Four) made audits of higher quality than the other (DeAngelo, 1981b). Hence, based upon research findings for USA and other countries, such as the UK (Chan et al., 1993) and Australia (Butterworth and Houghton, 1995; Craswell et al., 1995), this factor is expected to have a positive relationship with the audit fees.

## **2.2.4 Factors attributable to both Client and Audit Firm**

### **2.2.4.1 Time Lag**

Another variable that can be used to assess the variations in audit fees is the lag (time difference) between the audit report and the end of the accounting year. A shorter time lag can be associated with either expensive audit fees charged by the auditor or with efficient corporate accounting practices and internal control systems that could result in less audit work and hence lower audit fees. Longer time lags may suggest that a company is facing accounting problems that may require extra audit work and hence additional audit fees (Chan et al., 1993; Ezzamel, Gwilliam and Holland, 1996).

### **2.2.4.2 Season (Year-End)**

Chan et al. (1993) found that there is a difference in audit work performed during the “busy season” and “non-busy season”. This led to the conclusion that audit firms would charge a premium for the busy season (WaresulKarim and Moizer, 1996). Consequently, it is expected that companies with accounting periods ending during the busy season would be expected to pay a premium for the audit services provided (Chan et al., 1993; Craswell et al., 1995).

## **2.3 Summary of Literature Review**

Most of the studies were done in developed countries, while there is limited literature of emerging economies. In this study the researcher sought to find out the determinants of audit fees in Kenya for both client based and audit firm factors.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.0 Introduction**

In this chapter the researcher highlights the research design of the study; the population of the study; sample design for the study; data collection methods used in the research and finally the data analysis methods employed in the research.

### **3.1 Research design**

The deductive approach, according to Saunders et al (2007) implies that a study begins with developing theory and hypotheses. After that the author will choose data and test the hypotheses. Therefore, deduction is appropriate when an author aims to make a cause-effect link between specific variables while induction is used when an author tries to interpret the world through its phenomena or events. (Saunders et al, 2007). Since the purpose of this research was to determine factors which have an influence on audit fees, it was suitable to use the deductive approach.

### **3.2 Population and Scope of the Study**

The researcher drew his population from all the listed firms at the NSE and their respective auditors. The choice of the NSE as the population was informed by the availability of published annual reports by the listed firms in Kenya. Companies that had not prepared consolidated financial statements for the five years were not analyzed in the study. Also companies incorporated out of Kenya were not analyzed due to differences in currency. The researcher targeted annual financial statements of 60 listed firms from 2008 to 2012 financial years. Once the company was identified the company auditors were also identified from the annual report.

### **3.3 Data collection**

Data was collected through secondary sources from the published annual reports of the listed firms that were obtained from their respective websites and the Capital Markets Authority. Information about the audit firms was obtained from their respective websites and where applicable telephone interviews were made where necessary. Other relevant published information from sources other than the respective companies was also be used; this included newspapers and magazines. Data was to be obtained from the 60 listed firms, forming the population of the study, covering the years 2008 to 2012.

### **3.4 Data Analysis**

The nature of the data was mainly quantitative. Data analysis involved reducing accumulated data to manageable size, developing summaries, looking for patterns and applying statistical analysis techniques. Data was categorized, ordered, manipulated and summarized to obtain answers to the research questions. Descriptive statics, frequency tables, mean and standard deviation was used to present the research findings. Descriptive statistics according to Cooper and Schindler (2008) means statistical measures used to depict the center, spread and shape of distribution will be used to present the findings. Spear man correlation was used to measure the relationship between each two variables (Dependent and Independent). Regression analysis was used to link the relationship between audit fees and their determinants. This was done by entering data into a computer through an excel spreadsheet to enable manipulation of the data before entering the data into SPSS after which analysis was done using the statistical package (SPSS).

### 3.4.1 Model Specification and Operationalization of Variables.

$$\text{Ln(ADFEE)} = \beta_0 + \beta_1(\text{Size}) + \beta_2(\text{EXP}) + \beta_3(\text{Disc}) + \beta_4(\text{Big4}) + \beta_5 \text{Ln (TAST)} + \beta_6(\text{SUB}) + \beta_7(\text{CRisk}) + \beta_8 (\text{ROE}) + \beta_9 (\text{SSN}) + \beta_{10} (\text{TLAG}) + \varepsilon_i$$

**Where**  $\beta_0$  represent the constant for audit fees regression equation (Fixed audit costs component)

$\beta_1$ -  $\beta_{10}$  represent the respective correlation coefficient's of the independent variables.

$\varepsilon_i$  – represents the error term of the model.

#### 3.4.1.1 Dependent Variable

The dependent variable is natural log of audit fees paid for auditing annual accounts of parent companies and consolidated accounts. Audit fees do not include fees for auditing annual reports of branches and subsidiaries (**Ln (ADFEE)**).

#### 3.4.1.2 Independent Variables

##### a) Auditor Size

In this study the auditor size was measured by the number of partners in the audit firm (**Size**). Large audit firms are expected to charge high audit fees. The study assumed a constant number of partners in the audit firms for the entire period of the study. The assumption was due to unavailability of the data on a year-year basis.

##### b) Auditor Experience

In this study, Auditor experience was measured by the number of years in professional practice by the audit firm (**Exp**). I expected auditor experience to have a positive coefficient in relation to audit fees.



**c) Auditor Reputation**

This was measured by disciplinary cases against an audit firm in the last 5 years (2008 to 2012). In this study this was a dummy variable measured by 1 for a firm with no disciplinary cases and 0 for a firm with one or more disciplinary cases (**Disc**). I expected auditors with high reputation to charge high audit fees.

**d) Big 4**

Big Four audit firms receive premium fees in many countries compared to non-Big Four (Palmrose, 1986; Francis and Simon, 1987; Butterworth and Houghton, 1995). In this study this was a dummy variable, where a big 4 (KPMG, Deloitte, PWC and EY) was assigned a value of 1 while non-big 4 firms was assigned a value of 0. I expected a big 4 auditor to earn higher audit fees than a non-big 4 auditor.

**e) Client Size**

I expected large clients to pay higher fees relative to smaller clients, in line with prior studies (Palmrose, 1986; Simon and Taylor, 2002). In this study client size was measured by the natural log of total assets of the audited company (**Ln (TAST)**).

**f) Client Complexity**

The more complex the client firm is, the more the audit work; therefore, the researcher expected higher audit fees for complex companies. In this study complexity was measured by the number of subsidiaries in a firm (**SUB**).

**g) Client Risk**

Client risk measures the odds of an auditor issuing an unqualified judgment on materially misstated financial statements. In this study the client risk was measured by the ratio of

Profit before tax to Total Assets (EBT/Total assets). Denoted by (**CRisk**) I expected a positive relation between audit fees and client risk.

**h) Client Profitability**

In this study the Return on Equity (**ROE**) was used to measure profitability. I expected client profitability to have a positive relation with audit fees. ROE is the ratio of net income to shareholders equity.

**i) Season**

This was a dummy variable; a value of one was assigned for the busy season and a value of zero for the non-busy season. I adopted financial year end of December to March as the busy season (**SSN**). Companies with accounting periods ending during the busy season were expected to pay high audit fees.

**j) Time Lag**

This was measured by the number of calendar days from the financial year end to the date of signing of the audited accounts by the auditors, denoted by (**TLAG**). A longer time lag was associated with extensive audit work and hence high audit fees as audit fees is charged on hours spent by the auditor on the client.

## CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

### 4.0 Introduction

This chapter details the research findings presented by descriptive statistics, tables and charts. The regression model and correlation statistics and discussions are also presented in this chapter. The study population targeted all the 60 listed firms, out of which 48 firms were responsive representing a response rate of 80%. The data was analyzed to answer the research question which was to find out the factors determining audit fees at the NSE.

### 4.1 Descriptive Statistics

#### 4.1.1 Audit Fees

In the five years under review by the study audit firms earned a total of Kshs. 2,112,785,000.00 in audit fees. The maximum audit fee charged was Kshs. 37,000,000.00 while minimum was Kshs. 223,000.00 for Equity bank in 2012 and Limuru Tea in 2012 respectively. The standard deviation of audit fees is Kshs. 7,213,477.44 indicating high variation in audit fees charged. This is illustrated by Table 1 below.

**Table 1: Descriptive Statistics on Audit Fees**

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
AdFee	240	223,000.00	37,000,000.00	2,112,785,000.00	8,803,270.83	7,213,477.44
Valid (listwise)	N 240					

Source: Research Data, 2013

### 4.1.2 Auditor Size

This was measured by the number of partners in a firm as indicated in the ICPAK CPA Directory. The smallest audit firm had 2 partners while the largest firm had 12 partners. This is illustrated in Table 2 below.

**Table 2: Descriptive Statistics on Auditor Size**

	N	Minimum	Maximum	Mean	Std. Deviation
SIZE OF AUDIT FIRM	240	2.00	12.00	9.4833	2.80013
Valid N (listwise)	240				

Source: Research Data, 2013

### 4.1.3 Auditor Experience

Auditor Experience was measured by the number of years in professional practice in Kenya. The most experienced auditor was Deloitte and Touche with 105 years in 2012 while the least was 12 years for DCDM as the year 2008. The data can be summarized in Table 3 below.

**Table 3: Descriptive Statistics on Auditor Size**

	N	Minimum	Maximum	Mean	Std. Deviation
Auditor Expirience	240	12.00	105.00	63.2750	32.10312
Valid N (listwise)	240				

Source: Research Data, 2013

#### **4.14 Auditor Reputation**

The study adopted the number of cases lodged to the disciplinary committee of ICPAK against the audit firm. It was found that the 35.8% of the audit firms had a disciplinary case lodged against it to ICPAK's disciplinary committee, while 64.2% had no disciplinary case signifying good reputation. This is illustrated by Table 4 below.

**Table 4: Frequency Table on Auditor Reputation**

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	86	35.8	35.8	35.8
Valid 1.00	154	64.2	64.2	100.0
Total	240	100.0	100.0	

Source: Research Data, 2013

#### **4.1.5 BIG 4**

Out of the 48 analyzed firms, the audit market was mainly the big 4 firms (Deloitte, PriceWaterhouse, KPMG and Ernst and Young). Deloitte commands the most market share of 35.8%, PWC 24.2%, Ernst & Young 19.2%, KPMG 16.7%, DCDM 2.1%, BDO 1.7% and the least share is Crowe Horwath with 0.4% as shown in Table 5 below.

**Table 5: Frequency Table on NSE Auditors**

	Frequency	Percent	Valid Percent	Cumulative Percent
BDO	4	1.7	1.7	1.7
Crowe Horwathe	1	.4	.4	2.1
DCDM	5	2.1	2.1	4.2
Deloitte&Touche	86	35.8	35.8	40.0
Ernst & Young	46	19.2	19.2	59.2
KPMG	40	16.7	16.7	75.8
PWC	58	24.2	24.2	100.0
Total	240	100.0	100.0	

Source: Research Data, 2013

#### **4.1.6 Client Size**

Client size was measured by the Natural log of total assets. Out of the 48 listed firms analyzed, the minimum total assets were 57,775,000.00 and maximum was Kshs. 367,379,285,000.00. Table 6 below indicates that the average total assets for the 48 listed firms was Kshs 42,231,464,805.83 worth of assets with a standard deviation of Kshs. 61,507,184,153.63 indicating huge differences in sizes of the listed firms in the NSE.

**Table 6: Descriptive Statistics on Total Assets**

	N	Minimum	Maximum	Mean	Std. Deviation
Assets	240	57,775,000.00	367,379,285,000.00	42,231,464,805.83	61,507,184,153.63
Valid (listwise)	N 240				

Source: Research Data, 2013.

#### 4.1.7 Client Complexity

Client complexity was measured by the number of subsidiaries for a company. The maximum number of subsidiaries was 17 for scangroup in 2012 and 2011 while the minimum was zero subsidiaries. The average number of subsidiaries for listed firms over the period of study is 4, with a standard deviation of 4, indicating differing company structures across the listed firms. This is illustrated by Table 7 below.

**Table 7: Descriptive Statistics on Client Complexity**

	N	Minimum	Maximum	Mean	Std. Deviation
Client Complexity	240	.00	17.00	4.4958	3.83771
Valid N (listwise)	240				

Source: Research Data

#### 4.1.8 Client Risk

This was measured by the ratio of Profit before tax to Total Assets expressed as a percentage, the minimum value was -27.43% and a maximum is 65.9%. The mean was 10.08% and standard deviation of 10. This indicates differences in client risk profiles for the 48 listed firms analyzed. This is summarized in Table 8 below.

**Table 8: Descriptive Statistics on Client Risk**

	N	Minimum	Maximum	Mean	Std. Deviation
Client Risk	240	-27.43	65.90	10.08	10.00
Valid N (listwise)	240				

Source: Research Data

#### 4.1.9 Client Profitability

Client profitability was measured by the return on equity. The minimum value is -233.04 for Uchumi in 2009 while maximum is 60.64 for Limuru Tea in 2009. During the period under the study the average ROE was 15.32% while its standard deviation was 21.59 indicating varying profitability levels for NSE listed firms. This is summarized in Table 9 below.

**Table 9: Descriptive Statistics on Client Profitability**

	N	Minimum	Maximum	Mean	Std. Deviation
Client Profitability	240	-233.04	60.64	15.32	21.59
Valid N (listwise)	240				

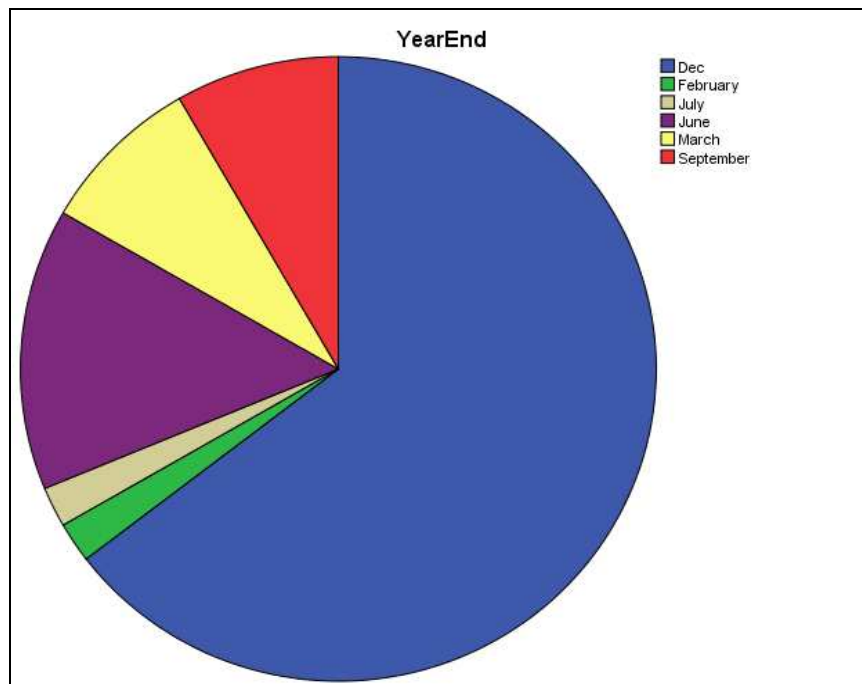
Source: Research Data

#### 4.1.10 Season

According to the research data, most companies end their financial years in December 64.6%, February 2.1%, July 2.1%, June 14.6%, March 8.3% and September 8.3%. This is illustrated by the pie-chart below. The study adopted financial year ending Dec – March as the busy season for auditors, therefore 72.9 of the analyzed firms fall on busy season, while 27.1% fall in the non-busy season. These results are summarized in Figure 1 below.



**Figure 1: Pie Chart indicating Year Ends of listed firms**



Source: Research Data, 2013

#### **4.1.11 Time Lag**

This measured the number of days from the financial year-end date to the time of signing of the annual report by the auditors. The minimum was 35 days for East African Cables in 2010, maximum was 162 days for Uchumi in 2010. The average days in signing of the audit report for the listed firms is 83 days. This is illustrated in Table 10 below.

**Table 10: Descriptive Statistics on Time Lag**

	N	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Time Lag	240	39.00	162.00	19,980.00	83.25	24.36	593.59
Valid N (listwise)	240						

Source: Research Data, 2013

#### **4.2 Linear Regression Model**

In the study a linear regression model was used to predict the relationship between audit fees and the hypothesized factors determining it for listed firms in Kenya. In a regression model, the coefficient of correlation (R) indicates the extent of the relationship between two variables where  $R=+1$  indicates perfect positive correlation, while  $R=-1$  indicates perfect negative correlation between the variables. In the model adopted for the study the coefficient of correlation (R) is 0.857 which indicates that audit fees is positively related to the variables under study.

The co-efficient of determination ( $R^2$ ) is 0.735 and the adjusted ( $R^2$ ) value of 0.723, meaning that 73.5% of audit fees for listed firms is explained by the model's independent variables while 26.5% of audit fees is explained by the error term and other independent variables. The standard error of estimate is 0.46235 which indicates the deviation from the regression line established by the model. This is summarized in the Table 11 below.

**Table 11: Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.857 <sup>a</sup>	.735	.723	.46235	.735	63.354	10	229	.000

a. Predictors: (Constant), Time Lag, Client Complexity, Auditor Experience, Client Risk, Season, Big 4 Status, Client Profitability, Client Size, size of audit firm, Auditor Reputation

The F statistic value is 63.354 this is greater than the F value, at  $\alpha$  0.05 at n=10 and 229 degrees of freedom, which gives F value of 1.8799. Therefore, I can therefore, conclude that the relationship between audit fees and the independent variables in this model is significant. This is illustrated by the ANOVA results in Table 12 below.

**Table 12: ANOVA Results**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	135.431	10	13.543	63.354	.000 <sup>b</sup>
	Residual	48.953	229	.214		
	Total	184.384	239			

a. Dependent Variable: LN of AUDIT FEES

b. predictors: (constant), time lag, client complexity, auditor experience, client risk, season, big 4 status, client profitability, client size, size of audit firm, auditor reputation

**Table 13: Regression Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	5.778	.617		9.371	.000	4.563	6.993
Size of Audit Firm	-.128	.029	-.409	-4.363	.000	-.186	-.070
Auditor Experience	.013	.004	.482	3.267	.001	.005	.021
Auditor Reputation	.648	.196	.354	3.309	.001	.262	1.033
Big 4 Status	1.004	.235	.229	4.279	.000	.542	1.466
Client Size	.344	.024	.662	14.604	.000	.297	.390
Client Complexity	.082	.008	.358	10.086	.000	.066	.098
Client Risk	.000	.004	-.002	-.037	.971	-.009	.008
Client Profitability	-.004	.002	-.102	-2.480	.014	-.007	-.001
Season	.121	.075	.061	1.622	.106	-.026	.268
Time Lag	.006	.001	.163	4.118	.000	.003	.009

a. Dependent Variable: LN of AUDIT FEES

From the regression coefficients in Table 13 above, the constant for the audit fee model 5.778 given that all other factors are held constant. The variables of audit firm size, client risk and client profitability have negative coefficients of -0.409, -0.02 and -0.102 respectively. This means that the variables are inversely correlated to audit fees for the listed NSE firms, as a result, any increase in any of the variables leads to a reduction in the audit fees charged and vice versa.

The other research variables of auditor experience, auditor reputation, Big 4 status, Client size, Client complexity, Season and Time Lag are positively correlated to audit fees for

NSE listed firms. This means that an increase in any of these variables causes an increase in audit fees charged and vice versa.

### **4.3 Correlation Analysis**

The correlation matrix, in Figure 2 below, reflects correlations in pair between the dependent variable and the independent variables. The dependent variable is Ln audit fees and the independent variables include Auditor size, Auditor experience, Auditor reputation, Big 4 status, Ln total assets, Client risk, ROE, Year end and Time lag. From the correlation matrix, 8 out of 10 variables are statistically significant to audit fees (Sig <0.05). In addition Auditor Reputation, Big 4 Status, Client Size, Client Complexity, Client Profitability and Season are positively related to audit fees as a result if any of these variables increase, audit fees also increase. Auditor experience, Client risk and time lag are negatively correlated to audit fees meaning that an increase in any of these variables causes a decrease in audit fees.

The variables of Auditor size and client profitability were found to have no correlation to audit fees (sig. >0.05), their significant values were 0.518 and 0.737 respectively. Also there were 24 relationships among the variables, with the most significant being that of size of audit firm with auditor experience and the big 4 status which had correlation coefficients of 0.842 and 0.551 respectively. This is illustrated by the correlation matrix below.

**Figure 2: Correlation Matrix**

## **4.4 Discussion of the Results**

The study used regression and correlation analysis to analyze the findings, while correlation analysis shows the relationship between two variables, multiple linear regression analysis indicates effects of the group of the independent variables on the dependent variable. The results are discussed in the following section.

### **4.4.1 Auditor Size**

The regression results reflects a negative correlation with audit fees (sig = 0.000 and correlation coefficient = -0.409), the correlation results show no relationship exists between audit fees and size of the auditor (correlation coefficient = -0.042 and sig = 0.518). The results are contrary to my expectations and findings in previous studies of: Francis and stokes (1984); Palmrose (1986) and Choi, et al., (2010) who found a positive link between audit fees and auditor size. I can attribute this to the proxy used to measure size (the number of partners in an audit firm) may not have been the best measure of audit firm size. A better proxy could have been the total number of employees in an audit firm but this data was not available due to confidentiality claims.

### **4.4.2 Auditor Experience**

Regression results indicate auditor experience is significant in determining audit fees for listed firms in Kenya (correlation coefficient = 0.482 and sig = 0.001). The correlation results indicate a negative correlation between audit fees and auditor experience (Correlation coefficient = -0.135 and sig = 0.037). The regression results indicate auditor experience is a key factor in determining audit fees for listed firms in Kenya. This is

consistent with previous study of Ferguson, et al., 2003 who found that years of professional practice increases audit fees charged.

#### **4.4.3 Auditor Reputation**

Auditor reputation is an important factor in determining audit fees for listed firms in Kenya. This is supported by both the regression (Coefficient= 0.354 and sig = 0.000) and correlation analysis (coefficient = 0.218 and sig = 0.001). The results are consistent with earlier studies of: Larcker and Richardson, 2004; Gonthier and Schatt, 2007 and Che-Ahmad and Houghton, 1996. It can therefore be concluded that, the better the reputation of the audit firm the more is the demand on its audit services and the higher audit fees are.

#### **4.4.4 Big 4 status**

Big 4 status of an audit firm is an important factor in determining audit fees for listed firms in Kenya. This is supported by both the regression (Coefficient= 0.229 and sig = 0.000) and correlation analysis (coefficient = 0.320 and sig = 0.000). This is consistent with studies in the US (DeAngelo, 1981b), UK (Chan et al., 1993), and Australia (Butterworth and Houghton, 1995; Craswell et al., 1995). It can be concluded that Big Four audit firms receive premium fees in Kenya compared to non-Big Four audit firms.

#### **4.4.5 Client Size**

The client size as measured by the total assets in the study was found to be an important factor in determining audit fees in Kenya's listed firms. The regression results (Coefficient= 0.662 and sig = 0.000) and correlation results (Coefficient= 0.718 and sig =



0.000) show a strong relationship between audit fees and client size. The results are consistent with findings in earlier studies of Palmrose, 1986; Simon and Taylor, 2002; Simunic, 1980; Low et al., 1990; Chan et al., 1993 and Carson et al., 2004 which found a positive relationship between audit fees and auditee size.

#### **4.4.6 Client Complexity**

This was measured by the number of subsidiaries. It was found that the client complexity is an important factor in determining audit fees for listed firms in Kenya, this is supported by the regression analysis (Coefficient = 0.358 and sig = 0.000) and also the correlation analysis (Coefficient = 0.471 and sig = 0.000). The results are consistent with studies of: Sandra and Patrick 1996; Simunic, 1980; Low et al., 1990; Chan et al., 1993; Firth, 1997; Butterworth and Houghton, 1995 and Carson et al., 2004 who found a positive correlation between auditee complexity and audit fees.

#### **4.4.7 Client Risk**

The regression results (coefficient = -0.02 and sig = 0.971) found no relationship between audit fees and client risk, correlation analysis (coefficient = -0.191 and sig = 0.003) indicate a negative relationship between audit fees and client risk. These results are inconsistent with previous studies of: Sandra and Patrick, 1996; Francis and Simon, 1987, Craswell and Francis, 1999; Carson et al., 2004; Joshi and Al-Bastaki, 2000 who found a positive correlation between audit fees and client risk. I attribute the results to the proxy used (PBT/Total Assets) which may not have been a good measure of client risk. Most studies used debt ratio to measure client risk, in this study the ratio could not be used since I considered all the listed firms unlike most of the studies that excluded financial

firms in their studies. This is because of the nature of their financial statements of financial firms which do not have information on debt.

#### **4.4.8 Client Profitability**

The regression results (coefficient = -0.102 and sig = 0.014) indicate a negative correlation between audit fees and client profitability. The correlation results (coefficient = 0.022 and sig = 0.737) show no relationship exists between audit fees and client profitability. The regression results are inconsistent with earlier studies (Sandra and Patrick, 1996; Joshi and Al-Bastaki, 2000) who found that audit fees is significantly influenced by client profitability. This inconsistency can be explained by ICPAK's code of ethics which states that "a member of the Institute is guilty of professional misconduct if such member, charges, in respect of any professional employment other than insolvency or receivership, fees which are based on a percentage of profits or which are contingent on results." (ICPAK, 2006) This means audit firms in Kenya do not consider profitability of the clients in determining audit fees.

#### **4.4.9 Season**

The correlation results (coefficient = 0.235 sig = 0.000) indicate a positive relationship between audit fees and client firm's reporting season. The regression results (coefficient = 0.061 sig = 0.106) however, show no relationship exists between the audit fees charged and the reporting season. This is inconsistent with results of earlier studies by WaresulKarim and Moizer, 1996; Chan et al., 1993 and Craswell et al., 1995 who found that that audit firms would charge a premium for the busy season. This can be attributed

to other important factors such as client size and big 4 status which are given more prominence as opposed to the reporting period among the listed firms in Kenya.

#### **4.4.10 Time Lag**

The regression results (coefficient = 0.163 sig = 0.000) indicate existence of a positive relationship between audit fees and the time lag in signing of the audit report by the auditors. The correlation results (coefficient = -0.153 sig = 0.018) indicate a negative correlation between audit fees and the time lag. The regression results are consistent with earlier studies of Chan et al., 1993; Ezzamel, Gwilliam and Holland, 1996).

## **CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.0 Introduction**

This chapter gives a brief summary of the findings of the study; conclusions and recommendations of the research; it also highlights the limitations of the study and suggestions for further research.

### **5.1 Summary of Findings**

The study sought to find out the determinants of audit fees for firms listed in the NSE. The study employed deductive approach where a study begins with developing theory and hypotheses. After that the author will choose data and test the hypotheses. Data was collected on 48 listed firms' annual reports covering the period from 2008 to 2012. The annual reports were obtained from the respective company websites and the Capital Markets Authority. Multiple linear regression and correlation analysis were used to analyze the data.

It was found that the average audit fee was Kshs. 8,803,270.83 in the period of the study. It was further noted that the audit market for listed firms is dominated by the Big 4 firms and most companies (72.9%) financial years end in December.

The multiple linear regression models coefficient of correlation (R) is 0.857 and coefficient of determination ( $R^2$ ) is 0.735 implying that 73.5% of the variation in audit fees can be explained by the variables in the study, while 26.5% of the audit fee variance is explained by the error term and other factors. The model is statistically significant as indicated by the F value of 63.354 and significance value of 0.000.

The regression results indicate existence of a positive relationship between audit fees and the following variables: auditor experience; auditor reputation; Big 4 status; client size; client complexity and time lag. Also, a negative relationship was found between audit fees and size of the audit firm and client profitability. The results did not support any relationship between audit fees and client risk.

## **5.2 Conclusions and Recommendations**

From the study it is evident that the audit market for listed firms in Kenya is dominated by the Big 4 audit firms. Based on the results of the study I can conclude that: time lag; client complexity; client size; Big 4 status; Auditor experience and auditor reputation are the important factors determining audit fees for NSE listed firms.

The following recommendations can be made arising from the study. First, ICPAK should put in place measures that will encourage disclosure of key information like the financial statements of audit firms as very little information is publicly available about audit firms in Kenya. Secondly, it was also noted that some companies failed to comply with CMA Act which requires the filing of annual reports to the authority annually, based on this fact I recommend strict disciplinary action against companies which fail to comply with the requirements of the CMA Act. Thirdly, it was also noted that most companies did not disclose non-audit fees. ICPAK should formulate requirements to ensure not only audit fees are disclosed but also non-audit fees as well. Non-audit fee poses a serious threat on the professional independence of an auditor especially if an auditor becomes over dependent on such fees.

### **5.3 Limitations of the Study**

The study encountered the following limitations. First, the choice of the listed firms created some bias in the study since it is dominated by the Big 4 audit firms. Secondly, the effect of other macroeconomic factors such as inflation was overlooked in the study. Thirdly, the inclusion of financial firms made it impossible to use the debt ratio as a proxy for client risk. Fourthly, the effect of the various industries was not analyzed in the model adopted for the study.

### **5.4 Suggestions for Further Research**

Arising from the study, the following areas are recommended for future studies. First, the effect of the various industries or sectors in the determination of audit fees should be studied as there various regulations and requirements governing various industries. Secondly, the effect of macroeconomic factors such as inflation should be studied. Thirdly, a study should be done to evaluate the strategies used by the big 4 audit firms so as to command a very high stake in the local audit market. Finally, the effect of internal controls, such as audit committees and internal audit departments, on audit fees should be studied.

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## APPENDIX I

### List of Firms Analyzed in the Study

1	TPS Serena	25	Access Kenya
2	Nation Media	26	Safaricom Limited
3	Uchumi Supermarkets	27	Centum Investments
4	ScanGroup	28	Mumias Sugar
5	Standard Group	29	CIC Insurance
6	Rea Vipingo	30	Diamond Trust Bank
7	Sasini Tea	31	Kenya Commercial Bank
8	Limuru Tea	32	Equity Bank
9	Sameer Africa	33	Eveready
10	KenolKobil	34	Olympia Capital
11	Kenya Airways	35	Car and General
12	Kakuzi	36	Pan Africa Insurance
13	East Africa Breweries	37	Standard Chartered
14	Total Kenya	38	NIC Bank
15	Kenya Power	39	Housing Finance
16	Kengen	40	National Bank
17	EA Cables	41	Jubilee Insurance
18	Crown Paints	42	Cooperative Bank
19	East African Portland	43	Barclays Bank
20	Carbacid Investments	44	Kenya Re Insurance
21	Transcentury	45	CFC Stanbic
22	Bamburi Cement	46	Williamson Tea
23	BAT	47	Unga Group
24	Athi River Cement	48	BOC Gases

Fig. 1: Listed Firms at the NSE (source: [www.nse.co.ke](http://www.nse.co.ke))