



**The determinants of external audit quality evidence from
manufacturing share companies of Addis Ababa Ethiopia**

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Statement of declaration

I, Bethitina Leilina, have carried out independently a research work on “The determinants of external audit quality evidence from manufacturing share companies of Addis Ababa Ethiopia” in partial fulfillment of the requirement of the M.SC program in Accounting and Finance with the guidance and support of the research advisor.

This study is my own work that has not been submitted for any degree or diploma program in this or any other institution, and that all references materials contained therein have been duly acknowledged.

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This is to certify that the thesis prepared by *Bethitina Leilina*, entitled: *The determinants of external audit quality evidence from manufacturing share companies of Addis Ababa Ethiopia* and submitted in partial fulfillment of the requirements for the degree of Master of Science in Accounting and Finance complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Abstract

The determinants of external audit quality evidence from manufacturing share companies of Addis Ababa Ethiopia.

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Audit quality is a very debatable topic in the area of auditing following the fall of giant companies in the West. One of the issues that gained momentum has been to analyze the external audit quality and the various audit firm-client relationships.

The purpose of this study is to investigate the determinants of external audit quality proxied by discretionary (abnormal) accrual based on audit firm specific attributes that are considered vital by regulatory and professional bodies to properly monitor the external audit profession and to maintain trust among the various stakeholders in Ethiopian manufacturing share companies.

In light of this objective the study adopted quantitative method of research approaches to test a series research hypothesis. Specifically, the study used documentary analysis of companies' audited financial statements and personal inquiry with audit directors/officials of audit firms. Then companies were selected based on simple random sampling method to avoid biases and represent firms within manufacturing companies. Consequently, the study selected a sample of twelve (12) companies for the period of five years (2009-2013) with the total of 60 observations. The results of panel least square regression analysis show that audit firm industry specialization and certified audit professionals ratio have statistically significant and positive relationship with manufacturing share companies' external audit quality. On the other hand, the joint provision of audit and non-audit service has a negative and statistically significant relationship with manufacturing share companies' external audit quality. However, the relationship for audit firm size and audit firm tenure is found to be statistically insignificant. Therefore, this is a clear signal to all manufacturing share companies in Ethiopia that they cannot ignore audit firm characteristics while hiring of an audit firm for their audit service.

Keywords: external audit quality, audit-firm specific attributes, earning management, discretionary (abnormal) accrual.

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List of Acronyms

ACCA	Association of Chartered Certified Accountants
CLRM	Classical Linear Regression Model
ECSAF	Eastern, Central, and South African federation of Accountants
EM	Earnings Management
EPAAA	Ethiopian Professional Association of Accountants and Auditors
ERCA	Ethiopia Revenue and Customs Authority
FASB	Financial Accounting Standards Board
FDRE	Federal Democratic Republic of Ethiopia
FRC	Financial Reporting Council
GAAP	Generally Accepted Accounting Principles
GAAS	Generally Accepted Auditing Standards
IAASB	International Auditing and Assurance Standards Board
IFAC	International Federation of Accountants
IFRS	International Financial Reporting Standards
ISA	International Standards on Auditing
NAS	Non Audit Services
OFAG	Office of the Federal Auditor General
UK	United Kingdom

Chapter One: Introduction

“Whenever the advance of civilization brought about the necessity of one man being entrusted to some extent with the property of another the advisability of some kind of check upon the fidelity of the former would become apparent” (Brown 1999, p.18).

As noted in the above alluded quotation the demand for auditing existed long before any mandatory requirements. Some forms of auditing dates back to Greece as early as 500 BC (Costouros, 1978). Companies worldwide have to conform to certain requirements regarding the information they provide to the third parties (International Auditing and Assurance Standards Board, 2009). It is in the process of releasing the company’s yearly financial statements to the public the audit profession performs their duties of providing an acceptable level of assurance that statements are reliable and correctly performed in accordance with Generally Accepted Auditing Standards (Knechel 2001).

The requirements of having audited financial statements differ from country to country, but in most countries, industrial companies are required to have audited financial statements. When the audit gives reasonable assurance there is always room for mistakes and errors that can decrease the audit quality and mislead a third party in his/her decision. This raises the question of what is audit quality and the determinant factors affecting it.

In 2010, International Auditing and Assurance Standards Board (IAASB) stated about audit quality: “There have been a number of attempts to define audit quality in the past. However, none of them has resulted in a definition that achieved universal recognition and acceptance. Audit quality is, in essence, a complex and multi-faceted concept.”

The most used definition of audit quality is DeAngelo's (1981) definition which expresses the quality in terms of auditor's competency and independency. The quality is then dependent on the probability that the auditor will both detect material misstatements in the client's financial statements and report the material misstatements (Ibid). Empirically, during the years after DeAngelo's definition of audit quality, numerous studies have focused on the quality of the audit to see if they perform a low-or-high quality audit with focus on a number of variables. Vanstraelen (2000) examines if a long-term audit mandate has an impact on audit quality, Jackson et al. (2008) have studied audit quality from the perspective of audit firm rotation.

Yet other studies examines if auditor fees have an impact on audit quality (Hoitash et al. 2007) or if the size of the audit firm have an impact on audit quality (Lennox 1999). However, the ongoing challenge is how to operationalize audit quality and what measurements are most appropriate.

Although various proxies are available, the audit quality measure most commonly used in the audit literature is discretionary (abnormal) accruals, a measure of earnings management based on the modified Jones model (Beattie 2012). In this regard several researchers seem to agree that discretionary accruals are the largest and most important proxy of audit quality for non-financial firms (Sankar and Subramanyam 2001; Dechow et al. 2007; Meyer 2009; Bartov et al. 2010; Lawrence et al. 2011; Hennes et al. 2012).

The Ethiopian audit market environment has unique features unlike the audit market in other developed as well as developing countries. First, the audit market has two sub markets: 1) the external audit of state owned enterprises. The state owned Audit Service Corporation (ASC) was established in 1977 to audit state owned enterprises. 2) The other is the market for private audit

firms authorized by Office of the Federal Auditor General (OFAG) to audit business organizations. Second, the audit market is characterized by stiff competition triggered by the bidding system to obtain audit clients among auditors. Third, for a long period of time the international Big auditors has no presence in the country. Finally, there is no strong professional body in charge of regulating the accounting and auditing profession and consistent rules applicable in discharging professional responsibilities (World Bank 2007).

This feature of the audit market is likely to raise many concerns on the external audit practice in the country. World Bank (2007) reported that most of the external auditors in Ethiopia complain audit quality in the country is very low. At this point, it is imperative to question what factors determine the audit quality service provided by external auditors in the audit of Ethiopian manufacturing share companies. The extant literature revealed that audit quality is a complex issue (DeAngelo 1986) and connected to auditor independence concerns. It has also been found that the precedent accounting scandals in the west were associated with joint provision of audit and non-audit service, which actually motivate auditors to compromise their independence. Therefore, given the lack of strong professional body and standards in the country may results in lower the audit quality as well.

Auditing of companies in the regulated industries is associated with the incidence of higher discretionary (abnormal) accrual in case of audit failures. To avoid such incidence, it is argued that companies should take in to account factors that are most important to quality service in their financial statement audit to better align with users interest.

This study intends to identify the determinants of external audit quality in Ethiopian manufacturing share companies. The study also examines whether audit clients consider factors

important to the quality of financial statement audit using discretionary (abnormal) accruals as a measure for earnings quality that has been widely used in prior research concerning audit quality, which in turn serves as a proxy for audit quality to see the association that exist between external audit quality and earnings management of companies.

The study is organized in five chapters; the first chapter is the introduction section which includes the statement of the problem, objective of the study, significance of the study, scope and limitation, and organization of the study. The second chapter deals with review of related literature while the third chapter is dedicated to the research design of the study. The fourth chapter present the analysis and discussion of the results for the study. Finally, the last chapter presents the conclusions and recommendations for the study.

1.1. Statement of the problem

Audit quality is one of the most discussed topics among scholars who examine issues related to auditing and regulators who are charged with protecting the integrity of the financial reporting system. First of all, audit quality can be divided into perceived audit quality and actual audit quality (Jackson et al. 2008). This study concerns actual audit quality and so far the audit process carried out by auditors is not objectively measurable; the evaluation of the quality of the audit services must be based on indirect signals.

As a consequence of the rising number of accounting scandals of famous global players such as the highly publicized collapse of Enron debacle, the failure of Andersen and WorldCom's massive fraud make clear that high quality external auditing is one of the central components of sound corporate governance.

Moreover, the financial crisis which has affected most of the world in the year 2007 provokes a renewed discussion about the overall quality of external audit and this result may signal that auditors are being more watchful after such crisis and that they now tend to perform their work in a highly ethical way and ensure the high quality of their work.

Nevertheless, lion's shares of audit quality studies so far are based on large firms operating within well developed economies (Becker et al. 2004; Bauwhede et al. 2007; Francis and Yu 2009; Choi et al. 2010; Ebrahim 2011; Piot and Janin 2011). Only a little work has been done to further existing knowledge on audit quality within developing countries that have different auditing practice.

This is the source of motivation for undertaking deep research on external auditors, external audit quality and the factors that may affect external audit quality in industrial companies of developing countries.

Conventionally, audit firms with their auditors play critical and highly demanding roles in assuring that the financial reports present a true and fair view of audit clients' income statements and balance sheets and thereby reducing information risk exposure of users, which implies that high audit quality and quality assurance are expected to provide sufficient constraints on earnings management and strongly impact on investors' confidence (Francis and Dechow 2008). High auditing quality diminishes information asymmetry and minimizes uncertainty concerning earnings, which is commonly occasioned by discretionary accruals manipulations that are likely to present some problems for a true and qualitative earnings report in developing economies.

Unlike other countries, the Ethiopian audit market is characteristically different in nature. First, there is no strong professional body in charge of regulating the accounting and auditing profession and consistent rules applicable in discharging professional responsibilities (World Bank 2007). Second, for a long period of time the international Big auditors has no presence in the country. This feature of the audit market may have an important implication on audit quality. Strong professional body and applicable rules are important components to ensure a standard quality audit. Further the absence of Big international audit firms, which are assumed to provide a better quality audit, limit the audit service to local auditors only.

Apart from these unique features, World Bank (2007) reported that Ethiopia does not have a quality assurance and professional indemnity insurance program for auditors and the country has not yet experienced litigation on financial reporting. This may indicate that the quality concern given to the audit service is relatively weak and may serve as a loophole for auditors to reduce audit procedures in their engagement while being competitive in the thin audit market. Given such intense competition along with lower concern for audit quality, it would be reasonable to expect such threats to arise in Ethiopian context.

However, it is unfortunate that no single study conducted to the best of the researcher knowledge, in audit quality in the giant Ethiopian manufacturing industry. Let alone Ethiopia, which had problematic accounting and auditing practice, countries with advanced practices couldn't stop their high profile companies from falling. Therefore, given such a unique audit environment characterized by regulatory laxities in the accounting profession, and lower audit quality concern afforded in the country, it is imperative to investigate the factors that determine audit quality and its implication in the Ethiopian manufacturing companies context.

Moreover, this study uses the recent data and increased number of variables in order to explore various audit firm factors that determine the external audit quality. Since this is the first investigation of its type, the purpose of this study is to develop some preliminary ground work that a more detailed evaluation could be based and to fill the stated gap by analyzing the external audit quality of manufacturing share companies in Addis Ababa-Ethiopia, given that these companies as they collectively form the major chunk of the economy of any country while their financial transparency has a paramount importance to various stakeholders.

1.2. Research objective and hypotheses

The major objective of this study is to assess the audit quality determinant factors in Ethiopian manufacturing share companies. Based on the audit firm specific factors that are found to significantly influence audit quality in prior studies, the study assesses the factors that manufacturing companies consider in hiring of an audit firm for their audit service in Ethiopia. Specifically, the study evaluate whether audit quality is influenced by audit firm size, audit firm tenure, joint provision of audit and non audit services, audit firm industry specialization and certified audit professional ratio.

In addition, the study assesses these audit firm specific factors and audit quality issues by examining the extent of earning management through discretionary (abnormal) accruals.

In order to achieve the broad objective of the study, the researcher developed the following five testable hypotheses (Hp1-Hp5):

HP1: There is a positive relationship between size of audit firm and external audit quality of audit client as measured through discretionary accruals.

HP2: There is a positive relationship between audit firm tenure and external audit quality of audit client as measured through discretionary accruals.

HP3: There is a negative relationship between the joint provision of audit and non-audit services and external audit quality of audit client as measured through discretionary accruals.

HP4: There is a positive relationship between audit firm industry specialization and external audit quality of audit client as measured through discretionary accruals.

HP5: There is a positive relationship between certified audit professionals ratio and external audit quality of audit client as measured through discretionary accruals.

1.3. Methodology of the study

In order to achieve the objective of the study and to test the proposed hypotheses quantitative approach was adopted. Since the aim of quantitative approach is to produce a study that is interchangeable, it is important to have an objective perspective. To this end, to collect the necessary data the study adopted structured review of documents and personal inquiry which are intended to elicit data relevant for the determinants of external audit quality.

Accordingly, the data related to a documentary analysis which is necessary to undertake this study was gathered from the audited financial statements particularly balance sheet and income

statement of 12 randomly selected manufacturing share companies. The analysis basically concentrates on the data available in audited financial statements of manufacturing share companies for five consecutive years, covering the period of 2009-2013.

Beside, in order to seek clarifications for some audit firms specific factors, personal inquiry was held with audit directors (officials) who have been engaged in those audit firms who provide external audit service for their respective sampled manufacturing share companies.

Finally, the data obtained through the above mentioned data sources were analyzed through Eviews 6 soft ware package. The detail of the methodological aspects is discussed in chapter three.

1.4. Significance of the study

The significance of this study would include the following:

First, as it was explained in the review of the literature part studies made so far in Ethiopia with the objective of identifying the factors that determine external audit quality are very scanty. As a result, this study makes a number of contributions towards other researchers as a source of reference and as a stepping stone for those who want to furnish further insights into prevailing determinant factors that affect external audit quality in developing countries context, particularly in non-financial industry.

Secondly, as (Lam and Chang 1998) suggested knowledge of determinants of audit quality should be of interest and importance to suppliers and users of the audit services as well as the regulators.

Accordingly, the study identifies contextual factors that augment or inhibit external audit quality and draw some conclusions; this would assist the auditors to understand those identified external audit firm's factors affecting the external audit quality for manufacturing industry.

Thirdly, by highlighting major factors that determine external audit quality through observing evidence of earnings management, the study inform regulators, corporate managers, society, practitioners, and academicians on key priorities for the improvement of external audit quality as a key function in organizations based on empirical evidence rather than on prior assumptions.

Finally, this paper provides an insight whether the economic bond (measured through abnormal discretionary accrual) lead to the lower audit quality (proxied by the extent of earning management) between auditors and client manufacturing firms.

1.5. Scope and limitations of the study

The study has its own scope and limitations as it is presented below.

1.5.1. Scope of the study

It is important to define the boundaries of this study such that the readers will be aware of the direction to which this study is heading. The study is highly contemplated on the broadest and most interesting branch of auditing, external audit quality determinants for suppliers and users of the audit services. Despite that the topic of the study is delimited to examining audit firm and auditors determinant factors affecting the external audit quality that are frequently described in conventional auditing studies and literatures. However, the increasing use of the word auditors in this study does not by any means refer to both external and internal auditors. That is to say the word auditors in this study refer only to external auditors. This is because the scopes of function for external and internal auditors are different in nature.

1.5.2. Limitations of the study

The results of the study may suffer from some limitation. First, this paper examines only audit firms-specific determinant factors that affect audit clients' external audit quality due to the nature of the research.

However, the effect of various characteristics of audit clients that could have a role in determining the external audit quality does not give due consideration in this study.

Furthermore, from the prior study of Kilgore et al. (2013), the researcher is aware of other factors that may influence external audit quality. Among the most important factors identified in that study is audit fee. However, this study is unable to obtain the background information of client' audit fee because such information is not publicly available and difficult (if not impossible) to access from the financial statements on which the data is extracted. Hence, it is acknowledged as a limitation of this study.

Despite the above probable limitations, the researcher made her maximum effort to design the research as properly as possible and to achieve the specified objectives.

1.6. Structure of the study

The paper is organized into five chapters. Chapter one presents introduction of the study. The literature review part of the study is presented in chapter two. The review of the literature includes the theoretical review in its first section which is followed by the review of the previous studies related to the area and conclusion and knowledge gap finally. Chapter three presents the research design and methodology. This is followed by an analysis of the results and discussion part of the paper concurrently in chapter four. Finally, chapter five presents the conclusions and recommendations.

Chapter Two: Literature review

The first chapter introduced the problem to be investigated in this study along with purpose and research hypothesis. In order to put the study within the context of the existing literature, the subsequent section of this chapter present the review of both theoretical and empirical studies related to external audit quality determinants.

Several factors influence external audit services and audit quality, recognizing and understanding the underlying concepts and definitions of audit quality is essential in order to vouch results and analyses. Hence, chapter two serves as background for this study by describing concepts of external auditing and factors that could influence audit quality. Subsequent chapters build on concepts and definitions described here. The review has three sections. Section 2.1 presents the theoretical under-pinning related to auditing and audit quality since they are related to the research question and need further clarification. Then the researcher review accrual accounting which is considered to allow accounting flexibility and managerial judgment which could pose a threat to audit quality. This is followed by the review of empirical studies regarding the determinants of external audit quality and related issues from the extant literature in section 2.2. Finally, conclusions on the literature review and identification of the knowledge gap are presented in section 2.3.

2.1. Theoretical review

The theoretical framework section is the starting point for this chapter. It presents the background theories, upon which the study relies. The researcher presents the basic concepts first, such as issues related to auditing and audit quality. Thereafter, the researcher focuses on earning management as a measure of discretionary accrual and its connection with audit quality,

and finally the study presents the determinants of audit quality in relation to defined corporate governance mechanisms. Those mechanisms are considered to be related to the nature of external audit scope.

2.1.1. Background to auditing and role of auditor

Before discussing the quality of audit services, it is essential to understand the need of and the demand for audit services.

The word “audit” is derived from the Latin word “audire” which means the act of listening.

The concept of auditing might be explained as a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicate the results to interested users (Eilifsen and McKee 2006). In the audit process, there are two parties; auditee and auditor.

An auditor is a professional whose task is to perform the audit by verifying the accounting and the decision-making by the management of an auditee and final report in an auditor report.

This is necessitated by laws.

Auditors are bound by law to enforce proper application of accounting standards and to assure that the financial reports present a true and fair view of the client’s income statements and balance sheets. However, these explanations would not grasp the depths of the complicated processes of auditing.

Zerni (2009) explained audit service as a unique among other professional services for two major reasons. First, auditors are hired and paid by the client, but their product is really used by the third-parties like investors to whom they owe a standard of care.

Second, the quality of an audit cannot be directly observed prior contracting and, in general, not even after the audit is conducted. The only observable outcome of the audit process is the issued audit report, which, at least in its standard form, does not contain much information about the audit quality.

The knowledge base of the audit process is fundamentally obscure and requires judgment.

Even though the rhetoric and procedures of auditing imply an analogy to scientific practice, the actual practice has only superficial similarities to the scientific practice, according to Pentland (2000). He writes that the rhetoric of science is a powerful legitimating device for audit practitioners, although auditing is not a science. He further claims that auditing should not be seen as a neutral rendering of facts, rather it is a depiction of reality through accounted and audited numbers. He argues that auditors act as buffers between two symbolic worlds, they are more to be seen like movie critics than scientists. They interpret accounting systems, which are themselves interpretative products and they do so by following a variety of rules which are also open to interpretation. The financial statement is a summary of transactions occurring every day. Since the auditor is distanced and not able to witness the actual transaction or action there is a need for subjective interpretation by the auditor which requires judgmental skills (Francis 1994). If auditing is not a science but a practice subject to subjective interpretations and judgment as Brown (1999), Pentland (2000) and Francis (1994) suggest, then what is the value of auditing? An answer to that might be the production of comfort, where “the auditor can provide board members with reasonable assurances they need to sleep soundly at night” (Brown 1999).

Pentland (1993) writes that auditing can be interpreted as a ritual which transforms the financial statements from an inherently untrustworthy state into a form that the auditors and the public can be comfortable with.

Watkins et al. (2004) mention that the process and activities leading up to the production of the audit report such as evidence gathered are an important aspect of the professional conduct which is required of the auditor. An auditor cannot claim to have performed a test of a particular area if he or she cannot show documentation on it.

Thus Brown (1999) argues that to a large extent audit may be a collection of tests and an evidence gathering task. The evidence gathered in the form of documentation is important in order to defend any possible challenge from an authority or defend her or his professional appearance by showing that they were following routines that make sense and have value in the audit society.

Therefore, the auditors have been entrusted by the law to conduct statutory audits and that their role is of importance towards a well functioning business life by enhancing the reliability of the information. This entrustment has been based on the societal roles of an auditor in terms of reducing contractual conflict leading to the so-called agency cost between board of directors of the company who controlled the preparation of accounts and external owners by examining the management's behavior and the economic information provided by the company (Carson and Dowling 2005; Watkins et al. 2004; Chow 1982).

By having, an audit of the company the company assures that they have quality in the actions of the management and the company due to that the role of the auditor is a role of securing the quality for external users and the company. The claim that the audit has a role of assuring the quality for external users broadens the importance of the audit and shows that it is also performed for more users than the external owners (Carson and Dowling 2005).

In Ethiopian context external users most often encompass users such as tax authority, municipality or state, creditors, society, customers and suppliers.

The coming section highlights the necessity of audit for these listed users.

External owners

In larger companies the owners usually do not have the same information and are not a part of the management team. Most companies have a separation between ownership and management. Since they do not have same insight in to the company, the owners must be able to rely upon the information that the company provides them with, that the information give a true and fair view. In the end, it is this information that affects the owners' decision about their continuing ownership in the company and the auditor's opinion can play a crucial role in this decision (Knechel 2001). Therefore, it is important for the external owners that they can trust the auditor, audit report and that the audit performed is of high quality otherwise it would be futile to have an audit.

Creditors

When a company applies for a bank loan or other credits these lenders assesses the company's ability to repay the loan and hence it is important that the information the company bases its decision on is accurate and reliable, and the accuracy and reliability increases if there is a third, independent party that reviews the information, the auditor. Therefore, the auditor is important for the creditors and that they have performed a high quality audit (Newbold et al. 2007).

Society and others

A reason for company to have external auditing is institutional requirements, from state or institutional investors. The company can also feel an obligation to have external auditing due to the cost of not having one. This means that the company comes under much more scrutiny if they do not have an audit (Brown 2007).

Regulatory and public authorities, in Ethiopian most often the tax authority, municipality or the state, must be able to rely upon the information the companies provides because it is from this information the taxes and fees are dependent on. Since it is placed upon the company to pay the taxes, a review of an auditor increases the probability that this will be done correctly, and if not the auditor is obliged by law to comment upon that in the auditor report. Furthermore, auditors can provide help to companies who are eligible for benefits and grants from the state and municipality.

Others that are interested in that the information from the company is accurate are suppliers, customers and employees. For suppliers it is important to know if the company will continue to pay their bills and that their solvency is good. The customers want to know if the company is sound enough to continue its deliveries. The employees on the other hand has a more personal interest in the company, this is due to their dependence upon the company, they can then from the audited information make assessment on how the company performs and their future work situation.

2.1.2. Definitions and frameworks of audit quality

First of all, audit quality can be divided into perceived audit quality and actual audit quality (Jackson et al. 2008). This paper concerns actual audit quality, which can be measured by different proxies. Audit quality is much debated but little understood.

Audit quality is not a unitary concept. It should be divided into:

1. Quality of service; that is, factors which affects the client's experience of the audit process

2. Quality of opinion; that is, factors which contribute to a process which is likely to reach the right answer which is the concern of this research.

The two aspects can sometimes be in conflict, but the key to success is delivering the highest “quality of service” without compromising on the “quality of opinion”.

Despite more than two decades of research, due to the apparent conflicting roles of participants in the audit market there remains little consensus about how to define, let alone measure, audit quality. To start, it is important to note that the perception of audit quality can depend very much on whose eyes one looks through. Users, auditors, regulators, and society; all stakeholders in the financial reporting process may have very different views as to what constitutes audit quality, which will influence the type of indicators one might use to assess audit quality. The user of financial reports may believe that high audit quality means the absence of material misstatements. The auditor conducting the audit may define high audit quality as satisfactorily completing all tasks required by the firm’s audit methodology. The audit firm may evaluate a high-quality audit as one for which the work can be defended against challenge in an inspection or court of law. Regulators may view a high-quality audit as one that is in compliance with professional standards. Finally, society may consider a high-quality audit to be one that avoids economic problems for a company or the market. In the end, different views suggest different metrics.

To reconcile different view points, and to begin to understand what the absence of high quality may look like, the researcher has reviewed the two main schools of thoughts in audit quality research.

2.1.2.1. Two main schools of thoughts

Deangelo's Definition of Audit Quality

DeAngelo (1981, pp. 14) defines audit quality as "the market-assessed joint probability that a given auditor will both discover a breach in the client's accounting system, and report the breach to the third parties." This definition contains two aspects of audit quality: (1) the probability to detect misstatements depends on the auditor competence, experience, procedure employed on a given audit, the extent of sampling, and auditor audit technology and (2) the independence of the auditor, how independent is the auditor from the client to report such misstatements.

Although this is the most cited definition of audit quality, the problem is that audit quality according to this definition cannot be observed let alone measured. Hence audit quality measures based on this definition are indirect methods of measuring audit quality with the aid of indicators. DeAngelo's definition connects audit quality one to one with financial reporting quality. A financial report where all accounting breaches have been detected and reported by the auditor represents high audit quality. Hence, the level of assurance that no material error remains undetected and unreported is the metric of audit quality in DeAngelo's definition.

Followers of this thought of school, for instance, are, Palmrose (1988) accuracy of information auditors provide to investors, Epstein and Geiger (1994) the probability that an auditor detects and reports misstatements and Knechel (2009) Audit quality is the achieved assurance level.

Level of Compliance with Standards

Another approach to define audit quality is a more normative way of thinking.

This approach where audit quality goes along with the level of compliance with auditing standards is represented, for instance, by Ang and Cole (1993), Becker et al. (1998), Bagnoli, Penno and Watt (2001).

The auditor performs with excellent quality if he/she complies completely with all relevant standards. In this perspective, the level of compliance with auditing standards reflects the level of audit quality. Peer review findings, inspection results of oversight boards (such as the OFAG in Ethiopia) as well as lawsuits against auditors are in this case the best indicators for audit quality. Criticism of this approach is evident. The overall objective of an audit is not to best comply best with relevant standards; instead it is to ensure high quality financial reporting.

The European Commission explicitly stated that "Audit Policies: lessons learned from the crises" that "more substance over form" is needed not only in IFRS accounting but also in financial statement auditing as the following citation describes:

“From a user perspective, auditors should provide a very high level of assurance to stakeholders on the components of the balance sheet and the valuation of those components at the balance sheet date. The Commission wishes to explore the case for 'going back to basics' with a strong focus on substantive verification of the balance sheet and less reliance on compliance and systems work, that is tasks that should primarily remain the responsibility of the client and in the main be covered by internal audit. Auditors could disclose which components were directly verified and which were verified on the basis of professional judgment, internal models, hypotheses and management explanations. To provide a 'true and fair view', auditors should ensure that substance prevails over form.”

2.1.2.2. Regulatory frameworks on audit quality

IAASB Framework on Audit Quality

As research on audit quality is still unsatisfying, some non-academic institutions set up different frameworks. The latest framework (still in draft), an international one, have been conceived by the International Auditing and Assurance Standards Board (IAASB).

In an overall approach IAASB (2011) considered all possible influences of audit quality which are categorized as: (1) Inputs, (2) Outputs, (3) interactions amongst key stakeholders and (4) contextual factors.

The IAASB drafted the first version of its framework in a whitepaper in January 2011.

The whitepaper states that “there have been a number of attempts to define audit quality in the past; however, none of those definitions has achieved a universal recognition and acceptance. “Audit quality is, in essence, a complex and multi-faceted concept.” After several IAASB sessions, a sketch of the framework was developed capturing the relationships between the elements: context, inputs, outputs, and interactions.

Inputs are categorized into three groups: “(a) the values, ethics and attitudes of individual auditors, (b) the knowledge and experience of auditors and the time allocated for them to perform the audit; and (c) the effectiveness of the audit process and quality control procedures.”

Outputs are “often determined by the context, including legislative requirements” and can be influenced by stakeholders; “for some companies’ stakeholders, the auditor's report is the primary output and this is relatively standardized.”

Interactions amongst key stakeholders include “both formal and informal communications”, which will be influenced by the context in which the audit is performed and allow a dynamic relationship to exist between inputs and outputs” elements of the framework.

The contextual factors include “corporate government requirements and the applicable financial reporting framework” as well as “legislative and regulatory requirements”, which also “shape the interactions amongst key stakeholder.”

UK Financial Reporting Council's Framework on Audit Quality

A similar framework was set up five years earlier by the UK Financial Reporting Council.

The Financial Reporting Council identified four main drivers for audit quality: (1) the culture within an audit firm; (2) the skills and personal qualities of audit partners and staff; (3) the effectiveness of the audit process; and (4) the reliability and usefulness of audit reporting.

The focus in both frameworks (the UK FRC and the IAASB one) is on a process view of auditing where inputs are combined efficiently in order reach a certain outcome (assurance level), embedded in a specific contextual environment.

On a content view, the UK Financial Reporting Council covers the same elements and attributes like the IAASB does. However, the IAASB framework on audit quality is more comprehensive and detailed. Hence, the FRC's framework on national level will probably be obsolete soon and replaced by the pending international one from the IAASB.

2.1.3. Underpinning theories of external audit quality

Theory helps researchers and individuals to understand the relationship between objects and related mechanisms and how the world moves around. The existence of a theory requires us also to use our reasonable expectations about objects. Hendriksen (1970) defines theory as a coherent set of theoretical, conceptual and pragmatic principles forming the general framework of reference for a field of inquiry. Theory is not considered just a simple 'hunch' and it is not a ready concept to be used on demand or when exceptional scenarios exist.

Therefore the coherent term is associated with the concept of theory that is based on logical reasoning (Hendriksen 1970). It is implied that the concept of theory should be coherent with human behavior to provide guidance and explanation about a certain phenomenon (Deegan and Unerman 2011). Due to the fact that auditing can only be performed with the existence of an auditor, auditing is considered to be a human activity.

As a result of this human nature of auditing, individuals' behavior is needed to be part of the financial auditing theories (Deegan and Unerman 2011). The descriptive or positive theory was used mainly in this research rather than the perspective or normative theories. Normative theories are about prescribing events and what shall be done, while the positive theory is based on empirical evidence and observations.

Though audit quality has been subject to research since early 1980s, there is no agreed theoretical base on audit quality (Dowling and Leech 2011). A review of the literature indicates that four main theoretical frameworks have been used to explain and analyze the association between earnings management and external audit determinants. These are Agency theory, Stakeholder theory, Stewardship theory, Signalling theory and Institutional theory.

Thus, each of the aforementioned theories related to external audit quality and its determinants are discussed in detail in this particular section in an orderly.

2.1.3.1. Agency theory

Agency theory is considered to be a contract between shareholders (principals) and external auditors to control the work of other agents (management). Shareholders (principals) delegate tasks to be performed by management (agents). Tasks cover mainly operating the organization on behalf of shareholders to meet their objectives. Auditors exercise an intermediary role

between shareholders and management to validate financial statements prepared by management. The most important basis of agency theory is that the managers are usually motivated by their own personal gains and work to exploit their own personal interests rather than considering shareholders' interests and maximizing shareholder value.

For example, managers may be attracted to buying lavish offices, company cars and other extravagant items, since the cost is borne by the owners. This pursuit of self interest increases costs to the firm, which could include the costs of the formation of contracts, loss due to decisions being taken by the agents and the costs of observing and controlling the actions of the agents. Leuz et al. (2003) assert that the effects of such behavior ultimately reflect in the company earnings.

Consequently, management has an incentive to manage the company's reported earnings in order to meet or beat earnings targets and, thus, to receive any bonuses that may be tied to the company's earnings (performance-related pay). This creates an information asymmetry in that managers can exercise the discretion they have on accruals, which in turn reduces the relevance and reliability of reported earnings, and the whole financial statements.

Davidson et al. (2005) argues that when management provides inaccurate financial reporting information, it introduces earnings management as a type of agency cost. As a result, managers cannot be fully trusted. Therefore, strict monitoring of managers by the principals or external auditors is seen as fundamental to protecting shareholders' interest from being compromised when managers maximize their self interest at the expense of the organization's profitability. Thus, the key predicament indicated by agency theory is ensuring that managers pursue the interests of shareholders and not only their own interests.

Most of researchers that examine the association between earnings management and audit quality relied upon agency theory to examine the role of external auditors in affecting a firm's management involvement in earnings management (Xie et al. 2003; Kao and Chen 2004; Davidso et al. 2005; Benkel et al. 2006; Goodwin and Seow 2009).

Principals appoint external auditors who, as agents under contract, are expected to be independent of the agents who manage their company. The role of the external auditor is to reduce agency costs by cutting information asymmetry in financial reporting (Piot 2001). Agency theory recognizes external auditing as the most important monitoring mechanism because it controls conflicts of interest and diminishes agency costs. Watts and Zimmerman (2006) confirm that hiring a high-quality external auditor will undermine agency cost introduced by management.

External auditors act on behalf of the shareholders and enable them to closely monitor the actions of managers. As a result, high audit quality involving a specialized independent auditor can decrease opportunities for managers to pursue self-interest at the expense of owners and, thus, principals obtain more favorable returns.

Taking agency theory into consideration, earnings management may be indicative of an agency problem. As a consequence, hiring external auditors who are supposed to provide high audit quality should result in a reduction in the practice of earnings management. Given these agency assumptions, independent variables are identified with the aim of detecting associations between audit firm attributes and earnings management.

2.1.3.2. Stakeholder theory

Stakeholder theory explains the relationship between organizations and their external environment (Freeman 1984). A stakeholder is defined as a human agency that can have an impact or affect organizations (Gray et al. 1996). Stakeholders represent the big umbrella for all individuals and parties that may have a direct or indirect interest in an organization.

Direct stakeholders are shareholders, employees, investors, customers and suppliers whose interests are aligned with the company. An example of an indirect stakeholder is the government, which is indirectly affected by the company's function (Kiel and Nicholson 2003). Due to this role of stockholders, organizations are not only accountable to shareholders only but also to stakeholders. As a result of this accountable relationship, many factors and conditions exist to maintain and manage the stakeholder-organizations relationship.

Stakeholder theory is an extension of the agency view, which is believed to better equip managers to articulate the shared purposes of their firm and board of directors to look after the interests of shareholders. However, this narrow focus on shareholders has been expanded to take into account the interests of many different stakeholder groups, including interest groups related to social, environmental and ethical considerations (Freeman 1984; Donaldson and Preston 1995; Freeman et al. 2004).

The linkage between stakeholder theory and earnings management is explained by Hodge (2006) who document that management may manipulate earnings in order to improve their private interests via expense of shareholders and additionally the rest of stakeholders.

Stakeholders' theory views external audit as effective monitoring systems that could protect all stakeholders' interests. Mattingly et al. (2009) also find high-quality external audit is associated

with high earnings quality and low earnings management in origination's stakeholder management.

Moreover, in terms of audit quality, Baker and Owsen (2002) suggest that the role of external auditor as monitoring mechanisms is not only directed for shareholders' benefit, but also for the interests of all stakeholders.

2.1.3.3. Stewardship (Monitoring) theory

Stewardship theory outlines a co-operative and optimistic view of relationships within the corporation by assuming that managers are good stewards and do not misappropriate corporate resources; their behavior is also conditioned by non-financial motives such as the need for recognition of their achievements and performance (Vanden et al. 2004). Thus the directors' role is to counsel and advice rather than to monitor.

Stewardship theory is based on agency theory (Jensen and Meckling 1976): the separation of ownership and control motivates the owners to incur costs to monitor the activity of the managers. One of these controls is the hiring of an external auditor who certifies the accuracy of the financial information provided by the managers.

Therefore, the stewardship (monitoring) theory considers external auditing as a mechanism that can contribute to control the conflict of interests among firm managers, shareholders and other external claimholders by enhancing the credibility of publicly reported financial information (Chow 1982). Stewardship theory considers the external auditors as an instrument of assistance to a steward chief executive officers rather than a controlling mechanism (Hay and Davis 2004). It also considers that management is less likely to practice earnings management.

However, the problem lies in the extent to which the management aspires to attain a good corporate performance.

2.1.3.4. Signalling theory

Signalling theory covers the information asymmetry area and voluntary selection of auditors (Morris 1987). The signalling theory helps in reducing information asymmetry. This reduction happens by a party disclosing information and signalling it to others.

Historically, the signalling theory has been established and related to the labor market, but it can be applied to any market having information asymmetry problems. A simple example about the signalling theory would be as follows: a seller is perceived to have a good quality product, and buyers have no specific information but only a general perception that the seller's product has good quality. Buyers in this case are ready to pay more for a product that they perceive to have a better quality.

It is the role of the seller to communicate and send signals to buyers about their good quality products. When sellers manage to create quality signals, buyers will consider all other sellers to have poor quality products (Morris 1987).

The above explanation of the signalling theory is tailored to fit the use of such theory in the concept of audit quality. As mentioned, the core of signalling theory is about information asymmetry that includes appointment of external auditors as a tool to manage the information asymmetry problem. Big size audit firms are known to provide better audit quality compared with other audit firms.

The higher the perception of audit quality the more clients and corporations are ready to pay more for big size audit firms to audit their financial statements. Due to this fact that companies

and organizations are willing to pay more to big size audit firms; audit fees are said to be a signalling factor for a better audit quality.

2.1.3.5. Institutional theory

The concept of institutionalisation is related to organizations actions over time. Such actions are said to be legitimated within an organization and environment (Pfeffer 1982).

Institutional theory suggests that internal operating processes loosely coupled with the observable structures accomplish the real work of an organization.

As a result, organizations with the appropriate structures in place will avoid deep investigations of their function by external auditors (Meyer and Rowan 1977). Organizations are subject to rules and regulations to which they must conform in order to ensure their legitimacy and thus have access to resources and ensure their survival (DiMaggio and Powell 1983). However, these rules and regulations don't necessarily guarantee that organizations will continue to operate efficiently (Meyer and Rowan 1977; Scott 2008).

Different factors play role in deriving organizations behavior from a legitimate behavioral point of view. Some factors are industry common practices, organizations' history, cultural values, management philosophy and folklore (Eisenhardt 1988).

The choice made by individuals is constrained by the force of moral pressures and the cake of custom in strengthening the social order (Scott 2008).

Institutional elements comprise the institutions and over time the institutional elements are given priority. The key point is to identify what institutional elements reinforce or undercut other elements (Scott 2008). Functional pressure, political pressure and social sources are three possible factors that cause pressure on institutional common practices (Oliver 1991).

As mentioned above, the choice made by individuals is limited to moral pressure faced (Scott 2008). Also there are different kinds of pressures (functional, political, social sources) that affect institutional common practices (Oliver 1991).

The institutional theory deals with factors affecting organizations within a social environment. External auditors behavior is assessed in relation to audit firm professional practices rather than social and political factors.

Moreover, their behavior is analyzed against different kind of pressures that are embedded within an audit firm rather than factors and sources found within an institutional context.

To conclude, this study draws on agency theory to test whether hypothesized relationships exist between audit firm attributes and the incidence of discretionary accrual as a measure of earnings management and hence external audit quality.

The agency theory framework has the ability to explain the motivations for earnings management. It also explains the expected association between audit firm attributes and earnings management.

2.1.4. Proxy for external audit quality

Despite the significant role of quality audit in enhancing quality corporate financial reporting, consensus has not been reached on how audit quality should be measured. Audit quality is an elusive concept because financial statement users can never perfectly observe the amount of assurance the external auditor actually provides before and when an audit is performed, thus audit quality cannot be measured directly as is not quantifiable by itself.

It is however possible to measure certain aspects that are closely related to audit quality. These measurable aspects are called *proxies*, as they are in proximity of the desired variable. For example, it is also not possible to measure the weather quality, but measuring the amount of rain,

sunshine and the temperature is not complicated and together they *proxy for* the weather quality. The same applies for audit quality.

Chen and Zhou (2005) see audit quality as a function of auditor performance. They argue that audit quality is affected by the ability and professional conduct of auditors.

Hence, auditors' failure to detect material misstatements or failure to report the misstatement would reflect poor audit quality. However, the quality of the audit work performed by auditors is not assessable for scrutiny by financial statements users because users are not privy to the working papers of the auditors nor can they observe what the auditors actually did. The question of what constitutes an audit quality remains unanswered.

Some observable indicators have often been adapted for financial statements credibility expected from high quality audit. These proxies based on DeAngelo's definition for example include magnitude of the discretionary accrual components of reported earnings, restatements, litigation against auditors, accounting (and auditing) enforcement releases and going concern reports.

The overriding objective in choosing audit quality proxies is to use measures that are most appropriate for the research setting. In evaluating appropriateness, one broad consideration is whether the study examines the demand or supply of audit quality. Output-based measures are usually best suited for tests that examine the supply of audit quality, while input-based measures are usually best suited for tests that examine the demand for audit quality. However, based on the researcher evaluation, there is no single proxy capable of painting a complete picture of audit quality and it is neither practical nor desirable to use all possible measures in a single study.

The primary purpose of a financial statement audit is to provide users assurance that the statements are prepared in conformity with generally accepted accounting principles (GAAP).

A key concept within GAAP is that financial reporting should provide information that is representationally faithful (i.e., financial statements should correctly portray the information they purport to represent).

Earnings, regarded as one of the most significant financial statement items, are at the basis of decision criteria for the companies to evaluate their performance and determine the value of the entity. The purpose of earnings report includes providing useful information for measuring the efficiency of management, predicting the entity's future performance and distribution of earnings, defining a base for determination of taxes, taking account of the price of products and so on (Hajizadeh and Rahimi 2012).

The agency problems arise from the asymmetric information in the principal agent contracts. Asymmetric information refers to a situation where one party to a transaction has more information than the other party. The existence of information asymmetry between firm management and firm shareholders is a necessary condition for management to engage in earnings management.

Schipper (1989) defines earnings management in the sense of purposeful intervention in the external financial reporting process, with the intent of either misleading stakeholders about an entity's performance or influencing contractual outcomes that are based on accounting numbers to obtain some private gain. Healy and Wahlen (1999) claim that earnings management occurs when the managers use their judgment in preparing financial statements with the intention not to report the firm's actual economic performance or in order to gain benefit from the adjusted figure.

Consistent with this definition and description of earnings the present study views earnings management as the opportunistic behavior of management. The managers may use earnings to communicate private information that could potentially maximize a firm's value (Watt and Zimmerman 2006; Holthausen et al. 1995; Subramanyam 1996; Sankar and Subramanyam 2001; Arya et al. 2003; Louis and Robinson 2005). However, since earnings management is involved a higher degree of managerial judgment, the consideration of a high quality information content of earnings and the subsequent monitoring processes are very crucial.

One of the monitoring processes is independent auditing done by professional individuals in order to increase the assurance of financial information for its users by constraining earnings management activities (Hajizadeh and Rahimi 2012). Thus, the present mainly focuses on the negative aspect of earnings management.

In sum, earnings management is appropriate to evaluate the financial reporting quality. However; notwithstanding the definition applied, earnings management is inherently unobservable.

There are two systems of measuring the performance and position of a company in accounting. One of them is accrual accounting and the other one is cash accounting. The general idea of accrual accounting is that the revenues are recognized when they are earned and expenses are recognized as they occurred.

Literature provides the central incentives (reasons) to use accrual as earnings management tool. Bonus compensation (Healy 1985; Gaver et al. 1995; Holthausen et al. 1995), avoidance of debt-covenant violation (Sweeney 1994; DeFond and Jiambalvo 1994), prevention of earnings decreases and losses (Bugstahler and Dichev 1997; Barth et al. 1999) and compensating for

regulatory or political costs (Cahan 1992; Jones 1991; Han and Wan 1998) are the most underscored reasons for companies to engage in earning management through accruals.

Besides, Watts and Zimmerman (2006); Healy and Palepu (2008) noted that the management might misuse the flexibility in the accrual accounting system in order to elevate earnings.

Accruals can be divided into the categories as non-discretionary (normal) and discretionary (abnormal) accruals.

Ronen and Yaari (2008) describes non-discretionary accruals as accruals that arise from transactions made in the current period that are normal for the firm given its performance level and business strategy, industry conventions, macro-economic events, and other economic factors; where the values are fixed. Example of this is payroll taxes.

The Discretionary accruals refers to accruals that arise from transactions made or accounting treatments chosen in order to manage earnings.

With this measure, one is able to determine the extent of earnings management a firm has applied to its financial statements. If the auditor makes an estimation which deviates from the norm, a difference in audit quality can be stated. This difference is called discretionary or abnormal accruals by DeAngelo (1986) and Jones (1991).

Thus, for supply studies, the most suggested and used proxy in audit quality research studies to capture earnings management which poses a threat to financial reporting quality and thus external audit quality as well is the statistical estimation of discretionary (abnormal) accruals which is one of the outcome related to audit quality in financial statements for the following reasons.

First, company managers have considerable discretion in estimating accrual. This discretion allows them flexibility in using accrual for income-increasing or income-decreasing earnings management, or for smoothing earnings.

Second, discretionary accruals are also by far the largest and most important accrual for companies, thus affording company managers wide latitude in its use (Chung and Kallapur 2003; Francis and Dechow 2008).

Huang et al. (2008) noted that earnings management can occur because accrual basis income depends on the use of estimates made in the financial reporting process. For example, current earnings could be boosted by underestimating bad debts on credit sales or expected warranty costs on the goods sold. Higher levels of accruals that are not associated with the firm's fundamental earnings process are assumed to reduce the quality of earnings.

Therefore, the aim of the research presented in this paper is also to provide empirical evidence on the impact of external audit quality on discretionary (abnormal) accruals, as a measure of earnings management, in Ethiopian manufacturing share companies.

2.1.5. Determinants of external audit quality

Like any other suppliers of other professional services, external auditors take into account the quality of audit services when providing their services. The quality of financial reporting has to be maintained in order to ensure some measure of credibility on the information contained in it. Determinants of audit quality have been intensively researched in the last three decades. A very short but good audit research summary was compiled by Wooten (2003). Based on DeAngelo's audit quality definition Wooten explains all factors influencing audit quality and depicts them in audit quality model. Inspired of his thoughts the "Globe of Audit Quality" has been developed.

It contains most of all researched determinations of audit quality in a cause and effect diagram that have been theoretically assumed and empirically furnished with correlation evidence.

Similar to Wooten (2003) study, recent indications about the relative importance of selected audit quality determinants were given by Kilgore et al. (2013). In a questionnaire they asked 81 users of the relative importance (scores from 0 to 15) often selected audit quality attributes (audit firm size, partner/manager's attention to the audit, audit quality-assurance review, audit firm tenure, communication between audit team and client management, audit fee, provision of non-audit services, senior manager/manager knowledgeable about client industry, audit firm industry experience, audit quality-assurance review, partner knowledgeable about client industry, certified audit professionals ratio and very knowledgeable audit team). Apart from audit firm size, audit firm tenure, provision of non-audit services, audit firm industry experience, audit fee as well as certified audit professionals ratio has been the most important factors identified in this study from the audit firm perspective.

Therefore, the aim of the research presented in this paper is to find an acceptable answer to the question that whether audit firm size, audit firm tenure, joint provision of audit and non-audit services, audit firm industry specialization and certified audit professionals ratio, as criteria of external audit quality, can limit the applying of earnings management (proxy for audit quality) in Ethiopian manufacturing share companies.

2.2. Empirical studies on the determinants of external audit quality

Audit firms have to tailor their services to ensure a competitive supply of auditing services for their clientele. Since the pioneering work of DeAngelo (1981), concerns about audit quality and the factors that influence audit quality have been longstanding subjects of interest in academic,

practitioner and regulatory debates about auditing. The objective of enhancing audit quality underlies standard setting activities and doubts about the quality of audit have motivated academic researchers to examine the links between various factors and the possibility of audit quality differentiation between audit firms in the provision of audit services.

Several studies have been conducted to examine the relationship between external audit quality and its determinants in developed and developing countries for different industry. Given the amount of empirical literature available on the topic of this research it would have been quite difficult to present the results of all the studies.

Hence, the main theme of this empirical review involves the consideration of the relationship between audit clients' level of earning management (measure of audit quality) and the various audit firms' related determinant factors using discretionary (abnormal) accrual as a proxy for earning management.

Although mixed results have been reported, prior researches have recognized audit firm related factors such as the size of the audit firm, audit fees (as an indicator of audit effort), audit firm specialization in the industry, the presence of fees from non-audit services, duration of the client-audit firm tenure and number of certified audit professionals in audit service per audit firm have commonly been tested for evidence of an association with audit quality (using proxy of earning management).

Thus, in line to audit quality determinant factors to be tested in Ethiopian manufacturing share companies, the discussion here concentrate on the key empirical evidences on attributes of audit firm determinant factors which have been empirically proven to have strong relationships with external audit quality, with a particular focus on those that have been conducted more recently, as far as they are the best indicators of the current situation.

Determinants of external audit quality studies conducted in single country are reviewed in section 2.2.1. This is followed by a review of determinants of audit quality studies carried out on a panel of countries in section 2.2.2. Finally, related studies conducted in the Ethiopian context are reviewed in section 2.2.3.

2.2.1. Single country studies

This section presents all the single country studies reviewed by the researcher chronologically as far as the writers' views have tended to change over time.

The study of DeAngelo (1981) was the first study about the auditing quality and the determinant factors affecting it. The author examined the relationship between audit quality and the size of the audit firm for a sample of United States banks for the 1983-1992 time periods.

Using the granger causality model, she showed that the auditing quality and the size of the audit firm to be positively related. Further DeAngelo (1981) demonstrated analytically that larger audit firms have several clients and less likely to be economically dependent upon the revenue from simply one or two and this serves as an incentives to detect material errors and irregularities in order to maintain their professional reputation, resulted in increased auditor independence, which is a recognized principal component of audit quality.

In this context, it is predicted that a higher quality auditor is more likely to control inappropriate behavior of the client's management and, thus, more likely to control earnings manipulation and ensure accurate financial information is issued.

On a similar theme, Krishnan and Schauer (2000) examined the relationship between audit firm size and audit quality in a sample of 164 Voluntary Health and Welfare Organizations (VHWOs), using their compliance with eight Generally Accepted Accounting Principles (GAAPs) disclosure requirements as the audit quality measure.

The authors used a multivariate logistic regression to control for variables associated with auditor reporting and argued that big size audit firms received larger audit fees compared to smaller firms and this larger audit fees reflect high audit quality through greater audit effort, which influences the ability of the auditors to detect material misstatements and constrain the incidence of earnings management.

Further, the study support the idea that the Big Four audit firms have regular training programs, standardized audit programs, and firm-wide knowledge sharing practices supported by information technology, this make possible for the reported earnings forecasts of companies audited by big size audit firms' auditors more accurate than non-big size audit firms' auditors, implying more accurate financial information.

In contrast to the above findings, using seventeen Korean manufacturing share companies that experienced corporate fraud, Louis and Robinson (2005) examined the determinant factors of external audit quality by proposing the hypothesis that audit firm size has an effect on audit quality.

The authors used discretionary accruals as audit quality proxy and employed the modified Jones model in attempt to control for differences in client characteristics between the two audit firm groups while estimating the audit-quality effects.

The empirical test resulted that since the audit that quality is produced by individual auditors rather than the firms for which they work, there is no significant difference in the reported discretionary accruals of clients audited by the differing size of audit firms.

Moreover, Louis and Robinson (2005) suggested that audit firm size alone should not be a prime determinant of higher level of audit quality that as long as professional standards and qualifications are maintained throughout the sector; otherwise small size audit firms may be

replaced simply because they are less well known, even though they may well be providing as high or higher audit quality services. Thus, it is unfair to distinguish between large and small audit firms irrespective of the fact that larger audit firms have more resources.

In an experimental study, Najjar et al. (2011) examined the incidence of discretionary accruals of sampled industrial companies in Kenya. The goal of the study was to investigate the effect of client industry audit specialization on external audit quality. They used panel data derived from annual reports and financial statements of 65 manufacturing companies for the period of 2005-2009 and apply multiple linear regression analysis using SPSS.

Najjar et al. (2011) identified a strong relationship between the magnitude of discretionary accruals and client industry audit specialization which is one among audit firm attributes. The results of their study also revealed that when a given audit firm has a large group of clients in the same industry, auditors expertise increases and will have in-depth understanding of the nature of business and risks in that particular industry.

Hence, companies that use an industry specialist audit firms as its outside auditor have lower level of discretionary accruals with more reliable earnings used in predicting future cash flows than companies audited by non-industry specialists audit firms, and therefore provide a higher audit quality for the client.

Likewise, the authors suggested that, in the long run, due to increased knowledge about the industry, errors in the audit will be eliminated, resulting in an increased audit quality. Hence, client industry audit specialization is the vital element that creates, and subsequently enhances, the learning curve of new auditors. This argument might seem simple at the outset, while in fact it is not.

Schauer (2008) provided further evidence on impact of audit firm-specific attributes on external audit quality for Indian private family firms that covered the period from 1999-2006. The study contributed to the literature which concentrates mainly on testing of the association between client industry audit specialization, measured by market share, and audit quality using the Jones (1991) abnormal accruals model, since prior research explained that it is the best measure of the discretionary portion of total accruals.

The overall results suggested that client audit industry specialists have more industry expertise creating by sharing best practices and learning from serving the same industry clients. Therefore, this enables external auditors to be more effective at detecting misstatements in staff working papers during the audit review process in order to constrain the incidence of earnings management which is associated with higher audit quality. Thus, in this way audit firms meet their client needs, because clients always want the best audit quality.

In the contrast to the positive association between client industry audit specialization and audit quality findings, Grambling and Khurana (2010) examined the association between longitudinal effect of audit firm industry specialization on audit quality in the period 2004-2007. In this study industry specialization is determined based on the market share approach. Through the relative market share of an audit firm, with total assets as the base, a given audit firm can be identified as an industry specialist.

The sample used in this study was divided into 63 industries, where in each industry the audit firm with the largest market share is the industry specialist. For determining the audit quality, the magnitude of abnormal accruals is used based on Jones (1991) abnormal accruals model. The absolute level of abnormal (discretionary) accruals of industry specialist audit firms are compared with those of non-specialist audit firms. After controlling for variables related to

abnormal accruals, regression results showed that there is no significant longitudinal effect of auditor industry specialization on audit quality. The hypothesis was rejected, and the authors conclude that audit quality of clients of industry specialist audit firms is not significantly different in the upcoming year than those of non-specialist audit firms.

A study made by Mande (2007) examined the effect of the number of consecutive years that the audit firm has audited the client (referred to as audit firm tenure in the current study) on external audit quality; evidence from Jordanian industrial companies over the period (2001-2005). He used absolute abnormal accruals to proxy for earnings management.

Based on the statistical analysis, Mande (2007) suggested that since the initial low-balling encourages auditors to accommodate their clients so as to extract future quasi-rents, auditor independence may be impaired even in the early part of audit firm tenure. Here quasi-rents can be defined as “at risk quasi rent” explanation, pursuant to which the more extensive potential economic loss exposures faced by large audit firms provide a strong motivational framework for quality assurance and enhancement. These quasi-rents, when subject to loss from discovery of a lower quality audit than promised, serve as collateral against such opportunistic behavior.

Further the study suggested that as the audit firm-client relationship lengthens, it results for external auditors in reducing their reliance on management estimation and representation, which results in a more effective audit.

Consistent with Mande (2007) findings, Meyer et al. (2006) examined whether the duration of the audit firm relationship with a client (referred to as audit firm tenure in this study) has an impact on audit quality for 840 firm-year observations of Australian companies that covered the period 1998-2004.

Using three-year audit-tenure segmentation, the empirical findings suggested serious disadvantages to audit firm tenure. Key among them was the loss of the current audit firm's cumulative client-specific knowledge (e.g. company's business, processes, systems, people, and risks), or a knowledge that is more general in scope but very essential to the audit process at hand (knowledge about the industry within which the client is operating and the accounting principles applicable in the country where the client is operating its business).

Lack of the aforementioned client-specific knowledge during the startup period of the external auditors' decreases the likelihood of detecting material errors and misstatement in the financial reporting of the firm which is associated with lower audit quality.

Further, the study revealed that since the costs of audit firm rotation would outweigh the perceived benefits of a required periodic "fresh look" at the financial statements by a new audit firm, audit firm tenure (rotation) would reduce, not improve, audit quality. But, no rationale other than data availability was provided for the selection of three-year audit tenure segmentation by this study.

In contrast to Mande (2007) and Meyer et al. (2006) study; Deis and Giroux (2012) examined the impact of audit firm rotation on external audit quality from a sample of Taiwanese 622 private companies and hypothesized that audit quality decreases as audit firm tenure increases. For this purpose, a multivariate regression where audit tenure was a continuous independent variable represented by the number of years the audit firm had audited the company client.

The result of the regression model indicated that audit firm tenure was shown to be a significant component of audit quality for the following reasons. First, in order to maintain the auditor independence which otherwise would be eroded due to the personal attachments with the audit client, which in turn improves audit quality. Second, it is considered that audit firm tenure plays

a key role in the transmission of learning experience to the outsiders, since the successor auditor gets information from his predecessor who helps him in assessing the firm's financial condition. At the same time this will improve the work of the audit firms as they know that sometime in the future their work will be reviewed by another audit firm when they are rotated after the specific period of time in order to enhance the audit quality through promoting the creativity in audit testing approaches and methods which might be affected by the increased familiarity with the client. Finally, the rotation also provides a new insight to the client's financial statements since the auditing practice is based on employing professional skepticism and the long run attachment with the client and working for long years for the same client can reduce the sharpness of auditors' professional judgment.

Frankel et al. (2009) conducted a questionnaire survey on Nigerian medium-sized manufacturing companies over the period of 2001-2007 to examine audit-clients and audit-firm related factors that could impair external audit quality. The joint provision of audit and non-audit services (NAS) to audit client was ranked as top threat factor by users (financial journalists) and preparers (financial directors).

Based on the statistical analysis the study revealed that, the provision of non-audit services (NAS) in general and audit-related services in particular exacerbate the economic bond between the audit firm and its client which may potentially cause the audit firm to be financially reliant on the client.

As a consequence of such an audit firm-client relationship, the auditor is unwilling to challenge a client's management on questionable accounting choices for fear of losing lucrative NAS fees which create incentives for audit firms to compromise their objectivity, e.g., waive audit adjustments, in order to retain audit clients and this create more opportunities to conduct

opportunistic earnings management by audit client managements. Hence, in this case the credibility of external audit work will be questionable.

Further, the results obtained from the t-test suggested that the offering of non-audit services by an audit firm does not lead to significant high knowledge spillover effects, which could lead to an increase in the auditors' ability to detect inappropriate accounting practices.

The study by Sharma (2011) empirically analyzed the influence of the joint provision of audit and non-audit services on Tunisian manufacturing companies' audit quality during the period 2005-2009. Using discretionary accruals as an indicator of audit quality, the regression analysis discovered a significant positive relationship between lower abnormal accruals indicate that earnings quality is higher, which is a proxy of audit quality and the practice whereby external auditors providing non-audit service to its audit client.

The finding suggested that providing NAS to audit clients ensure auditors potentially to have more extensive knowledge about the client's operations, e.g., the auditors know the extent and effectiveness of the information technology used within a company if he or she had a hand in designing the system. Moreover, task-specific knowledge and experience affected auditors' performance more than general business knowledge or years of experience gained simply through the audit process, suggesting that the incremental knowledge gained from performing non-audit services enables the auditors to perform the audit more efficiently and effectively.

The study also hypothesized that "knowledge spillover" can occur when NAS is provided to audit client which may enhance the auditors' understanding of the client and its risks. If investors believe this knowledge spillover exists, the auditor who performs NAS might be perceived to be more knowledgeable and competent regarding their client, and more likely to detect an error in the system or the output (financial information).

Furthermore, the author suggested that, the main question that arises when external auditors provide or could provide both audit and non-audit services is whether the auditors are able to conduct their audits impartially, without being concerned about losing or failing to gain additional services, and the subsequent economic implications for the audit firm.

Causholli et al. (2013) investigate the audit quality issue by investigating whether and how audit quality is associated with the joint provision of audit and non-audit services (NAS) by the external audit firm to its audit client. Using a sample of 1,008 firm observations of major Malaysian listed industrial share companies for the sample period 2004-2011, the study found either no or negative association between provision major classes of non-audit services and actual audit quality as measured by discretionary accruals. Hence, the authors have not obtained any pervasive evidence indicating that joint provision of audit and non-audit services erode actual audit quality.

2.2.2. Panel country studies

Gaeremynck (2010) analyzed the determinants of audit quality in four countries of the ASEAN members, namely Malaysia, Indonesia, Philippine and Thailand, for the period from 2003 to 2007 with sample of 155 medium-sized comparable manufacturing firm-year observations.

In the study, the unit of analysis was the external auditor who has worked in (Certified Public Accountant) CPA firm; the author takes the CPA Firm in the aforementioned ASEAN member countries.

Based on the empirical result, he found that the CPA firm size and audit fees (as an indicator of audit effort) for all selected ASEAN countries reveal statistical significant with positive relationship with audit quality. Whereas provision of non-audit services has significant negative impact on audit quality mainly for Indonesia companies only.

Audit firm being professional society membership shows a positive significant relationship for Malaysia and Philippine sampled companies. Also he found that client-effect variables; client size and financial leverage indicate significant impacts on audit quality while country-effect variables GDP growth rate and inflation show insignificant relationship with audit quality.

In a comparative study, Chang et al. (2003) investigated whether factors affecting audit quality in Malaysia are similar to those variables influencing Chinese industrial companies' audit quality.

The objective of the study was to investigate the existence of earnings management practices in sampled peer industrial companies and testing the impact of auditing quality characteristics (the auditing firm size, contacts with other global auditing firms, client retention period, auditing fees and the specialty in client's industry) on the enhancement of the level of audit quality.

Towards realizing the objectives of the study, data of 76 industrial companies for the period 2001-2006 were arranged in a way that made it possible to apply the Pooled Data Regression and the relationship was estimated and examined through multiple regressions of (Ordinary Least Squares OLS). The study found significant results indicating a low level of earning management in the financial statements issued by sampled industrial corporations.

In addition, the study showed that the auditing firm size and client retention period had a statistically significant impact on audit quality. The study provides no evidence supporting the effect of contacts with other global auditing firms on audit quality. Finally, the findings were not varied across the two countries so they concluded that audit quality in some other countries was affected by factors similar to those that influence the Malaysia and Chinese industrial companies.

Bedard et al. (2002) undertook a comparative study to measure the effects of 10 country-specific and audit firm-specific variables on audit quality, including inflation and GDP growth rate for country-specific variables, while the size class of an audit firm, the skills and personal qualities

of audit partners, industry specific expertise of audit firm, audit fees, number of certified audit professionals ratio per audit firm, concurring partner review and geographic location of audit firm offices for audit firm-specific determinants reflecting audit quality of investigate the issue of earnings management in European context. OLS estimation model was used to analyze sample data included 294 U.K, 669 Denmark and 345 Singaporean peer industrial firms for the period 1993-2001.

Overall they found that except for the geographical dispersion of audit firm offices variable, all those identified audit firm-specific variables have an impact on audit quality status.

A key result is that industry expertise of audit firm has statistically significant relationship with earning management, which provides evidence in support of agency theory; it reduces information asymmetries between managers and firm stakeholders by allowing outsiders to confirm the financial statements validity.

As pointed out in the theoretical section of this chapter, less information asymmetry is indicative of less earnings management and hence the higher level of audit quality.

The results also indicated that inflation and GDP growth rate have statistically insignificant relationship with the level of earning management.

Using the collapse of Arthur Andersen and Enron, Carello (2008) examined the effects of the client company losing the agency benefits inherent in the relationship with the audit firm.

By proposing the hypothesis that the audit firm tenure and provision of non-audit services have an effect on the audit quality, this questionnaire-based study examined the variables and observes the correlation of these variables by taking sample from privately held comparable industrial firms from some developing countries, namely Tanzania, Zimbabwe and Nigeria during the period 1996-2005.

The study focused specifically upon how investors perceive some of the main audit firm-client relationships that may have contributed to the collapse of Arthur Andersen and Enron: long relationships between audit firm and clients, and the joint provision of both audit and non-audit services, in order to determine whether, the owners still have faith in the role of the external auditor. The results suggest that, having long audit firm-client relationship is perceived as greater threats to audit quality than the provision of both audit and non-audit services.

Thus, the paper gave some support to the policy of imposing mandatory audit firm rotation in the region to promote audit quality.

Daniels and Booker (2009), using a sample of peer 286 oil processing companies, representing 75 percent of industrial companies listed in the Middle East and North Africa countries at the end of March 2006, he studied the determinants of audit quality over the period 1998-2006.

Findings of the study showed that audit firm with large number of certified audit professionals' ratio per audit firm, provision of assurance services only and specialization in client's industry might be an indicator of a higher level of quality.

Although with a negative sign in all regressions, the number of certified audit professionals' ratio per audit firm was relevant in explaining external audit quality, which is measured by abnormal (discretionary) accruals, as a measure of earning management.

Lin et al. 2010 analyzed the level of discretionary accruals determinants by examining them empirically with reference to sample of peer 869 textile firm-year observations operating in all countries of American continent, specifically North, South and Central America during the years 1999-2004.

The authors extended empirical work on audit quality theory in three ways. First, they examined a much broader set of audit quality theories, many of which have not previously been analyzed

empirically. Second, the authors developed five audit firm specific explanatory variables, namely senior auditor turnover rate, audit firm size, expertise gained from prior industry audit experience, audit fees and extended audit firm engagement with audit client; since the theories have different empirical implications in regard to different earning management determinants.

The results of cross-sectional OLS regression showed that both the asymmetric information theory and the stakeholder theory are pertinent theories to sampled countries companies' level of earning management whereas there was little evidence to support the institutional theory.

Abnormal high audit fees and lack of expertise gained from prior audit experience of a given client may have an impact on agency costs, as shareholders who are unable to offload their shares might exert pressure on management to act in their best interests. The results also indicated that higher rate of auditor turnover rate per audit firm has statistically insignificant relationship with the level of audit quality.

More recently Knechel and Vanstraelen (2013) investigated the determinants of audit quality on non-financial firms in Sub-Saharan Africa countries. The objective of the study was to examine the relationship between the earning management level and a set of audit firm-specific explanatory variables which include specific industry experience on the job, size of audit fees (as an indicator of audit effort), number of audit clients per audit firm, provision of non-audit services and other audit client relationships, length of audit firm engagement in specific audit client firm, number of certified audit professionals per audit firm and the size of audit firms by using panel data analysis to establish the determinants of audit quality of textile manufacturing companies over the period 2004-2010.

The OLS results showed that there is a negative relationship between earning managements (as a measure of audit quality) and long audit-firm client relationship which is consistent with the prediction of the stewardship theory.

In the same way, audit quality is negatively related with provision of non-audit services and other audit client relationships and lack of industry specific knowledge but positively related to number of certified audit professionals per audit firm as well as size of audit firms which is consistent with signalling theory. In general as per Knechel and Vanstraelen (2013), number of audit clients per audit firm is not significant determinants of audit quality.

2.2.3. Review of previous studies in Ethiopia

While reviewing the literatures in relation to determinants of external audit quality in Ethiopia; first the determinant factors affecting external audit quality in Africa must be kept firmly in mind.

In the context of Ethiopia, to the knowledge of the researcher, there appears to be very limited work on the assessment of the determinants of external audit quality of manufacturing share companies. These studies include the recent studies of Amsalu Gelaneh (2011) and Mekonnen Aboneh (2011). Those studies examined the impact of extended audit tenure on auditors' independence and audit quality, which is considered from the viewpoint of the external auditors and the impact of private ownership on financial reporting quality of privately, owned companies in Ethiopia respectively.

Thus, this particular section provides a detailed review of the two related studies conducted in the context of Ethiopia.

A study made by Amsalu Gelaneh (2011) examined whether extended audit tenures or auditor client relationship can lead to the emergence of threats to auditor independence which will impair audit quality. It also attempted to examine the impacts of lengthy audit tenure on auditors' independence and audit quality to see what extent the impact of extended audit tenure affects auditors' independence and audit quality when it is compared with short audit tenure.

In order to examine the issue; using stratified random sampling technique the researcher took a sample of six audit firms which includes a total of 50 auditors in Addis Ababa and collect primary data through questionnaire. The responses gotten were analyzed using a quantitative and qualitative approach with the help of SPSS.

Having this, the researcher analyzed the perceptions of external auditors based on how extended audit tenure affects auditors' independence and audit quality. The long tenure or as referred to in his paper as the extended audit tenure, is assumed would positively affect the audit quality.

As he suggested this is due to the reason that a newly appointed auditor might fail because of a lack of a thorough understanding of the client, means that new auditors would make more mistakes than the experienced auditors.

Moreover, the results also suggested that long-term auditor client relationships did not reduce the auditors' independence when it is compared with the short audit tenure.

On the other hand, Mekonnen Aboneh (2011) assessed the overall financial reporting quality of sixty privately owned companies in Addis Ababa.

The researcher constructed a compound measurement tool to comprehensively assess the quality of financial reporting in terms of five fundamental qualitative characteristics namely the relevance of financial reports, faithful representation of the actual happenings, understandability of the accounting reports, comparability of the reports by looking at the consistency of the accounting assumptions and methods the companies use, and timeliness of the financial reports

as defined in ‘An improved Conceptual Framework for Financial Reporting’ of the FASB and the IASB (2008).

Furthermore, the study applied both primary data where structured questionnaire have been distributed to the executives of the sampled companies and secondary data obtained from the accounting reports and auditor reports of those sampled companies.

The estimation results suggested that depending on the audit works of sampled companies the financial statement provided by private companies are faithfully represents what happened and the actual results of the financial figures.

Beside, the study findings conclude that the sampled companies did not all in all comply with the qualitative characteristics of the financial reports, which implied that the overall financial quality of these companies is generally questionable.

2.3. Conclusions and knowledge gap

Audit quality has been the focus of theoretical and empirical auditing research for the last 30 years. Worldwide, the concepts of earnings management and discretionary accruals are dominating audit quality considerations on audit engagement level.

Even though a plenty of studies investigated the determinants of audit quality in different countries especially in the western; there is a lack of empirical evidence from the developing countries context like Ethiopia. Only a limited studies had been conducted in the area from developing countries as far as the researcher knowledge is concerned e.g. Nigeria, Lebanon, South Africa, Jordan. Again, prior researches have documented inconsistent results on the evidence of the linkage between audit quality and its proxy.

In the context of Ethiopia, the related study conducted by Amsalu (2011) mainly assessed the impact of extended audit tenure on auditors independence and audit quality in country.

Accordingly, this study clearly failed to identify most of the factors that affect audit quality significantly as far as its main focus was an assessment of the impact of extended and short audit tenure on auditors' independence and audit quality in Ethiopia.

That means this study clearly fails to fill the knowledge gap that exists in the area as far as it considers only one variable without putting proxy for audit quality measurement and ignores other audit firm related variables affecting external audit quality.

The other recent study of Mekonnen (2011) assessed the impact of private ownership on financial reporting quality in privately owned companies in Addis Ababa-Ethiopia. This study limits its scope only on investigating financial reporting quality based on the qualitative characteristics of financial reporting information on an improved conceptual framework for financial reporting of the FASB and the IASB (2008) from the point view of auditors' perceptions. Besides, the study of Mekonnen (2011) fails to disclose the impact of some very important variables on Ethiopian privately owned companies' external audit quality such as company size, and audit firm related factors among others.

Researches in the area is very useful in giving an insight for both audit firms and company stakeholders as to knowing the determinant factors affecting audit quality. It will also help regulatory and professional bodies to properly monitor the external audit profession and to maintain trust among the various stakeholders. Therefore; it would be worthwhile to ask the audit firm related attributes that are considered to be the determinant factors affecting external audit quality in Ethiopia. Beside, the relationship between discretionary (abnormal) accruals (proxy of earning management) and external audit quality (measured by earning management) has not been empirically researched for the Ethiopian audit market. Thus, this paper aimed to speak directly to such issues using manufacturing share companies in Addis Ababa-Ethiopia.

Chapter Three: Research design

The preceding chapter presented reviews of literature on external audit quality with respect to the theoretical perspectives and prior empirical studies. The results from a review of the literature are used to establish expectations for the relationship of the different determinants and it confirms that there was no study conducted on audit firm contextual determinants of external audit quality for manufacturing share companies in Addis Ababa-Ethiopia. This chapter outlines and explains the methodology employed to achieve the research objective and test the research hypotheses formulated in the study. It starts by explaining the research objective and hypothesis in the first subsection. The second section provides a brief overview of the research approaches followed with the methodology adopted in the study, which in turn includes population, sampling design and actual data collection tools in the third section. The fourth section discusses about data presentation and analysis techniques used in the study. The fifth section presents the model and variable descriptions for the model adopted in the study.

3.1. Research objective and development of hypotheses

Before selecting the research method adopted it is important to see the objective and hypothesis of the research. The major objective of this panel study was to investigate the relevance of the theoretical audit firm related factors determining external audit quality in explaining the differences in the level of discretionary (abnormal) accruals among manufacturing share companies of Ethiopia in Addis Ababa.

In line with the broad purpose statement five hypotheses were formulated for investigation purpose. Hence, subsection 3.1.1 presents the dependent variable as a proxy for manufacturing share companies' external audit quality. Then the independent variables that are selected and

categorized under audit firm determinant factors affecting audit clients' external audit quality with their measurement are presented in subsection 3.1.2.

3.1.1. Dependent variable definition and measurement

In this study external audit quality is the dependent variable. This section evaluates the commonly used external audit quality proxies. Understanding these proxies is important because most of the literatures the researcher reviewed employ external audit quality proxy as the dependent variable.

A key aspect in seeking to add to understanding and knowledge of the drivers of external audit quality is the manner in which audit quality is measured, or perhaps more accurately, proxied for. While the literature uses a large number of proxies to measure external audit quality, there is no consensus on which measures are best, and little systematic direction on the desirability or comparability of one audit quality proxy versus another.

Some studies have focused primarily on implicit relationship between accounting restatements and low audit quality as for example in those of: Palmrose and Scholz (2000); Abbott and Peters (2002) and Raghunandan et al. (2003). Accounting restatements are corrections of material misstatements in audit client's previously issued financial statements.

However such an approach has been criticized in that the quality of the audit work performed by auditors is not assessable for scrutiny by financial statements users because users are not privy to the working papers of the auditors nor can they observe what the auditors actually did. Moreover, the question of whether all detected material misstatement result in restatements has to be negated because some material misstatements are being corrected prospectively due to impracticability to determine the cumulative effect of an error.

Therefore, focusing on restatements it is not possible cover all detected material misstatements in published financial statements as some misstatements are being corrected prospectively and some restatements theoretically can be based on the correction of immaterial prior period errors (Diana and Magda 2010).

Studies which have considered external audit quality by reference to the relation between a going concern audit report and client business failure include those of: Lennox (1999) and (Francis 2011). These studies sought incorrect going concern opinions definitively as an appropriate indicator for low audit quality. However, the going concern assessment is very challenging, as much more facts than negative trends in operating results, delay in payments, or denial of trade credit from suppliers have to be considered. It is more about business forecasting and assumption making than reviewing facts derived from historical financial reporting.

Furthermore, inappropriate going concern opinions are only a small portion of all occurrences of low audit quality. The auditor's failure in general is not detecting material misstatements. A missing or a wrong going concern opinion is definitely material. However numerous different types of material misstatements may occur, which are not connected to a going concern opinion, such as over or undervaluation of assets and debts in a good financial situation.

Finally, it is important to acknowledge that auditors are only able to provide reasonable assurance that the financials are free of material errors, and even a high quality audit may fail to catch a highly elaborate well concealed fraud.

Based on the frequent use of indirect measures of audit quality in audit quality studies and based on the nature of the study, in this study it was decided to employ a measure of external audit quality by reference to the extent of earnings management as the use of this measure to capture

audit quality is motivated by the assumption that high quality auditing constrains opportunistic earnings management of the financial disclosures in annual reports.

As stated in chapter two, from an agency theory perspective, when the interests of management conflict with the interests of stockholders, management may not act in the best interests of stockholders. Specifically, if the compensation of managers is associated with companies' performance, in order to maximize their wealth, managers have incentives to misreport earnings and they often have the ability to do so. Earnings management is assumed to negatively influence the quality of external audit by reducing its decision usefulness (Dechow et al. 2007).

Earnings management measures have several advantages that make them especially attractive candidates for capturing external audit quality. One is that the ultimate goal of auditing is to improve financial reporting quality, which earnings management measures are specifically designed to capture. Second, earnings management measure is expected to detect "within GAAP" earnings manipulation, for example to meet earnings targets. This is important because within GAAP, manipulation is likely to represent the "qualitative aspects of management's accounting choices" that reflect "potential bias in management's judgments" that auditing standards require auditors to evaluate (IAASB 2011).

Third, advantage of the earnings management measures is that their continuous nature captures variations in audit quality even in studies that are restricted to relatively small samples, and within the subset of clients who do not have egregiously poor external audit quality. High quality audits should be more likely to successfully detect and prevent earnings management.

Therefore, higher levels of audit quality should be associated with lower levels of earnings management. Earnings management propensity is invisible and it can be considered successful

only if it goes undetected. This makes earnings management measurement a challenging task for researchers. It is hard for investors to detect earnings management from looking at single cases but detection is less difficult if this phenomenon is studied using a large set of data to uncover systematic patterns.

Hence, discretionary (abnormal) accruals are used as an empirical indicator of earnings management (Jones 1991; Boynton et al. 2002; DeFond and Jimbalvo 2004; Dechow et al. 2007; Teoh et al. 2009; Bartov et al. 2010). As stated in section 2.1.4 of chapter two, earnings management disclosure is measured by an index based on the extent of discretionary (abnormal) unexpected accruals as the best proxy in order to provide evidence about the relationship between external audit quality and earnings management in manufacturing share companies Addis Ababa-Ethiopia.

The main advantages of using discretionary accruals to measure earnings management is that it can be calculated based on the information in the annual report. In addition, this type of research is replicable.

3.1.2. Independent variables definition and measurement

This subsection describes the independent variables that are used in the econometric model to estimate the dependent variable. Both theoretical and empirical audit quality studies have identified a range of audit quality factors significant in assessments of external audit quality. As a result of these studies, some broad categories of external audit quality determinants have emerged. Palmrose (1988), and Lennox (1991), however, point out that the choice of suitable explanatory variables is potentially contentious.

In this study, to identify which of the audit quality theories is relevant in the Ethiopian context, the researcher concentrated only on five key audit firm related variables. The independent variables are all audit firm factors endogenous in the audit profession. These five explanatory variables are: audit firm size, audit firm tenure, joint provision of audit and non-audit services, audit firm industry specialization and certified audit professionals ratio.

Moreover, this subsection discussed the developed hypotheses with their rationale, by proposing the expected sign of the coefficients, based on academic literatures. Note that some relationships between selected independent variables and audit quality are rather straightforward.

1. Audit Firm Size

The literature on audit firm size has clearly highlighted that whilst different samples and methods have been used by different researchers, there is a positive relationship between audit firm size and external audit quality. Specifically, large audit firms have more resources which they can direct to the recruitment and training process, thereby providing them with the human capability to detect and correct errors in financial statements.

Moreover, as larger audit firms have reputations to preserve, they are careful to report deficiencies. And many studies have found evidence to support the notion that audit firm size has an impact on audit quality, with audit quality improving as the size of the audit firm increases (DeAngelo 1981; Davidson 1993; Lam and Chang 1998; Tate 2003; Abu Bakar et al. 2005; Francis and Yu 2009; Choi et al. 2010). Therefore, a positive relationship between audit firm size and external audit quality is expected in relation to the study.

The following hypothesis is formulated based on the rationale stated above.

Hypothesis 1: There is a positive relationship between large audit firm size and external audit quality of audit client as measured through discretionary accruals.

The proxy for audit firm size applied in this study is the audit firm grade given by OFAG to classify audit firm's size in to Big Versus non-Big.

2. Audit Firm Tenure

Audit firm tenure is the audit firm's total duration to hold their client, or number of consecutive years that the audit firm has audited the client. The relationship between audit firm tenure (client duration) and external audit quality has been discussed intensively and controversially in literature.

Knechel and Vanstraelen (2012) propose with a lengthy client-audit firm relationship familiarity threats can impair audit quality. And it is not unlikely that sympathy between the audit firm and the client increases in the long-tenured relationship. This phenomenon may lead to a lower audit quality since the auditor becomes more prone to the danger of 'turning a blind eye' on inappropriate managerial actions.

Short audit firm tenure, in contrast, brings "fresh eyes" at company's financial statement and strengthens skepticism, which possibly increases the likelihood that the auditor will detect misstatements and/or challenge questionable accounting practices.

Following prior researches (e.g., Sutton 1993; Iskandar et al. 2010), audit firm tenure is defined as short when the same audit firm has audited the financial statements of a company for two or three years. Audit firm tenure is defined as long when the same audit firm has audited the financial statements of a company for four or more years.

Based on the above rationale, the following hypothesis is formulated:

Hypothesis 2: There is a positive relationship between short audit firm tenure and external audit quality of audit client as measured through discretionary accruals.

There is only one type of indicator for audit firm tenure, i.e. the number of years stay in audit client. This paper measures audit firm tenure as the number of consecutive years the audit firm has audited the client's financial statements. Meanwhile, the researcher further count tenure years backward starting from 2009, and trace it until the year during which the client switched to another audit firm.

3. Joint Provision of Audit and Non-Audit Services (NAS)

In general, audit firms provide various Non-Audit Services (NAS) such as tax consultancy, system consultancy, management advice, international business advice, human resource management, financial and investment consultancies.

The potential effect on external audit quality of an auditor, who provides both audit and non-audit services to an audit client has been subject to many studies by a variety of observers.

Overall, many researchers argue that the joint provision of audit and non-audit services (NAS) weaken objectivity, as well as audit quality, whereas others found that there exists no association between NAS (including audit related services, tax services, consulting services, legal services and other services) and audit quality (Frankel et al. 2009; Kilgore 2008; Salehi 2011).

Defond et al. (2009) have observed that, researchers are concerned about two effects of NAS. First is a fear that the NAS fees make audit firms/auditors financially dependent on their customers, and hence less willing to stand up to management pressure for fear of losing their business. Second is that the consulting nature of many NAS puts auditors in managerial roles, potentially threatening their independence about the transactions they audit.

Felix et al. (2005) argue that when auditors provide NAS to audit clients, the level of client pressure increases and they become less concerned with the internal audits quality, and that this situation influences the decisions made in the gathering of audit evidence, and the audit process. For this reason, the arguments put forth suggest a negative relationship between joint provision of audit and non-audit services and external audit quality.

As summarized by Schneider et al. (2010), prior studies reached inconsistent results concerning the association between high non-audit service fees and erosion of auditor independence that reduces audit quality but most generally the results indicate that NAS can negatively affect external audit quality. This view has been reinforced recently by spectacular corporate collapses and apparent audit failures associated with them.

The hypothesis empirically tested is as follows:

Hypothesis 3: There is a negative relationship between the joint provision of audit and non-audit services and external audit quality of audit client as measured through discretionary accruals.

In this study, the ratio of non-audit service fees to total audit fees in specific manufacturing share company audit client, as the base is applied as a proxy for joint provision of audit and non-audit services (NAS).

4. Audit Firm Industry Specialization

Audit firms with the largest market shares have developed the largest knowledge base within that particular industry and significant market shares within an industry reflect significant investments by audit firms in developing industry-specific audit knowledge with the improved external audit quality.

According to Meyer (2009), industry specialist auditors have developed industry specific knowledge that may enable them to provide higher audit quality than non-specialist audit firms.

Reichelt and Wang (2010) conclude that audits by industry specialists improve the quality of corporate earnings, and are more conservative in their audit opinions. Further, their findings indicate that industry experience has a more significant impact on the quality of auditor judgment than task-based experience and performance gains through industry experience occur quickly and then level out.

One of the key elements found by Schauer (2008) that affects the level of audit quality provided by an external auditor is the audit firm's industry knowledge. Cadman and Stein (2010) claim that the demand for higher quality audits may lead specialist audit firms to provide higher quality audits. In this context, specialist audit firms have the expertise resources, and the incentive to constrain opportunistic reporting of accruals and thereby enhance quality of external audit. Likewise, in this study a positive relationship between audit firm industry specialization and external audit quality is expected.

Hypothesis 4: There is a positive relationship between audit firm industry specialization and external audit quality of audit client as measured through discretionary accruals.

In this study, following Meyer (2009) research, an auditing firm was classified as industry specialist if its market share in manufacturing share company was greater than or equal to 20% of its total audit client.

5. Certified audit professionals ratio

Certification is the percentage of external auditors in the external audit function who have professional certification. The leading professional qualification is Association of Chartered Certified Accountants (ACCA).

Ethiopian accounting and auditing practice is highly influenced by the Britain accounting and auditing system because of the contribution of the British expert in introducing public accounting services in the country (Mihret et al. 2009) and the dominance of practitioners with British based qualification certifications(e.g. ACCA). The purpose of this certification is to establish a reliable, standardizing testing instrument that adequately assess the levels of specialized competency necessary to practice proper financial statement examination.

Professional certification obtained from a formal education process demonstrates an individual auditor's minimal level of competency (Daniels and Booker 2009).

This implies that professional certification reflects possession of the auditor to the structure of developed knowledge includes general knowledge, which is the facts, theories and definitions, and special knowledge and represented in the knowledge related to the completion of some tasks, and is correlated to a large extent with the scope of the efficiency of memory and the personal attributes and beliefs affect the test and modernize the knowledge infrastructure, and the pace of increase in building good attitudes and having prior knowledge about fraud and this well-organized and certified knowledge into memory quickly and easily call for the knowledge on need. The lower the ratio of the number of certified audit professionals to the estimated number of employees in audit services, the higher abnormal accrual in client's financial statement.

The above findings induce the following hypothesis.

Hypothesis 5: There is a positive relationship between certified audit professionals ratio and external audit quality of audit client as measured through discretionary accruals.

The ratio of total number of ACCA certified audit professionals to total number of employees in audit service per audit firm is used as a proxy for certified audit professional's ratio.

3.2. Research approaches

Research approach is the general framework for the study that links, knowledge claims, strategies of enquiry and specific methods. The research approach implicitly reflects the researcher attitude as to how knowledge is constructed and also commands what method to be employed in the study. As noted in (Creswell 2009), there are three research paradigms; these are quantitative research, qualitative research, and mixed research based their assumption towards knowledge creation on post-positivism, social constructivism and pragmatic philosophical grounds respectively.

However, the author also noted that the selection of a research design involves the considerations of the worldview assumptions the research brings to study, the nature of research problem, procedures of inquiry, the researcher's experience, audiences for the study, and data collection methods, analysis and interpretation. Thus, the following sections reviewed the aforementioned characters for each type of research designs in which it helped to adopt the fitted research method for this study.

Quantitative research: this approach is based upon an empirical cycle that has a deductive nature. The researcher often uses an established theory to develop the hypothesis to be tested. Jonker and Pennink (2010) contended that the essence of quantitative research is to use a 'theory' to frame and thus understand the problem at hand. Quantitative purists believe time and context free generalizations are desirable and possible, and real causes of social scientific outcomes can be determined reliably and validly (Johnson and Onwuegbuzie 2004). It is grounded in the basic attitude that knowledge about reality can also be obtained 'through the eyes of the researcher'. It is he who elaborates theory based on findings. In order to make this

happen, theory is most often translated into a conceptual model and elaborated predominantly by means of hypotheses. For the researcher conducting quantitative research it implies the need to carefully operationalising a theory and subsequently measuring it by means of variables and questions.

Qualitative research: is “an inquiry process of understanding” where the researcher develops a “complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting” (Creswell 2002, p. 15). In this approach, the bottom up or inductive exploratory method is used; it is used primarily for the purposes of description and exploration and to gain an understanding of how people think and experience their lives. In qualitative research, data is collected from those immersed in everyday life of the setting in which the study is framed. It is based on qualitative data which during analysis are examined for patterns, themes, and holistic features. A narrative report is presented and generalization is usually not a goal because the focus is on the local, the personal, and the subjective.

Mixed research: is the third and newest research methodology paradigm. It tries to mix the best of qualitative and quantitative research into research studies. Philosophically, mixed research takes an eclectic, pragmatic, and commonsense approach, suggesting that the researcher mix quantitative and qualitative in a way that works best for the given research question being studied in a particular context.

Mixed research uses both deductive and inductive methods, obtains both quantitative and qualitative data, attempts to corroborate and complement findings, and takes a balanced approach to research. A mixed methods approach is one in which the researcher tends to base knowledge claims on pragmatic grounds (e.g., consequence-oriented, problem-centered, and pluralistic).

It employs strategies of inquiry that involve collecting data either simultaneously or sequentially to best understand research problem. The data collection also involves gathering both numeric information (e.g., on instruments) as well as text information (e.g., on interviews) so that the final database represents both quantitative and qualitative information (Creswell 2009).

The following section hence presents the methods adopted in the study.

3.3. Research approach adopted

The major objective of this panel study is to assess the audit quality determinant factors in Ethiopian manufacturing firms based on factors which are found to significantly influence audit quality in prior studies. The research problem tends to be explanatory which seeks to explain the relationship between audit quality and audit firm level factors. Therefore, quantitative research design is appealing for this study to achieve the objectives of the study and to test the hypothesis.

Jonker and Pennink (2010) contended that the essence of quantitative research is to use a ‘theory’ to frame and thus understand the problem at hand. Quantitative purists believe time and context free generalizations are desirable and possible, and real causes of social scientific outcomes can be determined reliably and validly (Johnson and Onwuegbuzie 2004). It is grounded in the basic attitude that knowledge about reality can also be obtained ‘through the eyes of the researcher’. It is he who elaborates theory based on findings. In order to make this happen, theory is most often translated into a conceptual model and elaborated predominantly by means of hypotheses.

3.3.1. Sampling design

As noted in Jonker and Pennink (2010) it is obvious that researchers are typically unable to study the entire population. Therefore, researchers typically study a subset of the population which known as a sample. A sample is a portion of the population that inferences are to be made about the population. However, it is important that the sample be representative of the population from which it was selected.

The population of this study was manufacturing share companies in Addis Ababa, Ethiopia with audited financial statements from 2009 to 2013. According to the records held by ERCA, there are 25 manufacturing share companies with audited financial statements within specified period of time. To be included in the researcher analysis, the firms had to have available balance sheets and income statement for at least five consecutive years (2009 to 2013), to allow the researcher to obtain sufficient data for calculating the representative data from each firm. In addition, random sampling technique has been used in order to give equal chance for each manufacturing share company and the observations of the sample can be used for inferential purpose as stated in (Jonker and Pennink 2010). Therefore, out of the 25 companies the researcher random selected 12 manufacturing share companies as sample size because the researcher believed that given the nature of the study taking sample size more than this becomes unmanageable.

Those samples manufacturing share companies were include;

- Horizon Addis Tyre Share Company
- Faffa Food Share Company
- East Africa Bottling Share Company
- Meta Abo Brewery Share Company

- East Cement Share Company
- Tikur Abay Shoe Share Company
- Ambo Mineral Water Share Company
- Ethiopian Pharmaceuticals Manufacturing Share Company
- Bedele Brewery Share Company
- Kaliti Food Share Company
- Moha Soft Drinks Industry Share Company
- Addis Ababa Bottle Glass Share Company

The rationale for selecting manufacturing share companies is because they are category “A” tax payers. According to income tax regulation number 78/2002, category “A” tax payers must prepare and submit balance sheet and income statement (profit and loss statement) to the Tax Authority at the end of the tax year.

In addition to this, the study on manufacturing companies captured the researcher’s attention as they have significant contributions to the economic growth of the country. The growth rate of this sector was 13.4% on average from 2009 to 2013 (MOFED Report, 2009 to 2013).

3.3.2. Source of data and data collection

For this study, 5 years data (2009-2013, inclusively) has been considered. The data for the year 2009 used to compute the year 2010 value for indicator of variable growth i.e. change in total asset. Predominantly, in this study in order to analyze the effect of audit firm specific factors on external audit quality of manufacturing share companies, secondary data is utilized than the primary data sources which would allow given the confidentiality nature of the data, biased responses among the respondents and response rate considerations.

The data related to manufacturing share companies which is necessary to undertake the study was gathered from the audited financial statements submitted to Ethiopian Revenues and Customs Authority Branch Office in Addis Ababa city for tax purpose. This is done in an attempt to avoid the risk of distortion in the quality of data that could be obtained directly from the respective companies' archives and due to the operational location differences in the companies under investigation. The criterion for inclusion in the study unit was holding 5 consecutive years (from 2009-2013 is the quality and availability of data for a time period).

Moreover, in order to analyze the relationship that exists between audit quality and audit firm related variables in general, and to obtain information regarding; the audit firm industry specialization, the joint provision of audit and non-audit services and the number of certified audit professionals ratio in particular, personal inquiry was used with knowledgeable audit directors/officials of respective audit firms of those sampled manufacturing share companies. The researcher believe it to be a reliable sources of data because the audit directors are an administrative authority connected to the state and handling all questions regarding auditing.

3.4. Data presentation and analysis

After the data was collected from Ethiopian Revenue and Customs Authority (ERCA) the researcher rearranged and coded the data.

First, descriptive statistics was used to highlight the nature of the data and describe the variables used in the study in terms of trends and variation among the cross-section.

Second, correlation analysis was also conducted to see the relationship among the dependent and independent variables. This would help to get an initial picture as to the nature of the relationship among the variables before proceeding to regression analysis.

Finally, panel least square regression analysis is used to determine the significant relationships between manufacturing share companies' external audit quality and the identified independent audit firm variables and to test the hypothesis there on using EVIEWS 6 econometric software package. Various tests was also conducted to determine the appropriate regression model and to test the validity of its assumptions.

3.5. Model and variable description

In order to test the research hypothesis discussed in this chapter, testable model was developed.

The chosen model is strongly believed to capture the essence of the subject under study.

Therefore, the following model was specified based on the relation outlined in the hypothesis to investigate how external audit quality reacts to the firm's level of discretionary accrual as a measure of earning management.

3.5.1. Discretionary/Abnormal accruals model

In order to examine the effect of audit firm specific factors on earnings management and hence on external audit quality, discretionary (abnormal) accruals was used to measure earnings management (EM) as the dependent variable.

While there are many ways to estimate discretionary accruals, this study estimate discretionary accruals using the modified Jones (Dechow and Dichev 2002) model augmented by the fundamental variables in the Jones (1991) model as suggested by Francis (2011). It is similar as the original Jones model (1991), but an extra factor in the model is added to capture the impact of sales based manipulation.

This adjustment is intended to remove the effects of managerial discretion over credit sales from non-discretionary accruals, thereby improving the model's power to detect revenue-based earnings manipulation.

Although not free of criticism, the modified Jones model is argued to be the most popular model and it has been shown to outperform other discretionary accrual models for separating the total accrual in to discretionary and nondiscretionary accruals at detecting earnings management as a proxy for external audit quality (e.g. Subramanyam, 1996; Kothari et al. 2001; Becker et al. 2004; DeFond and Jiambalvo 2004; Bartov et al. 2010; Dechow et al. 2007 and Francis 2011).

In order to estimate discretionary accruals, first total accruals need to be computed.

The literature offers two methods for computing total accruals. The first method is the cash flow approach. And the second method is the traditional balance sheet approach that has been used in the majority of prior studies and one of the reasons for the popularity of this approach may be the availability of balance sheet statement data compared to cash flow statement data, and hence, to measure discretionary accruals. The current study employed the balance sheet approach.

Under the balance sheet approach, the formula of the modified Jones model to measure the total accruals (TACC) is as follows:

$$TACC_{i,t} = (\Delta CA_{i,t}/A_{i,t-1}) - (\Delta CASH_{i,t}/A_{i,t-1}) - (\Delta CLI_{i,t}/A_{i,t-1}) + (\Delta STDEBT_{i,t}/A_{i,t-1}) - (DPN_{i,t}/A_{i,t-1}) + \epsilon_{i,t}$$

Where:

- $TACC_{i,t}$ = Total Accruals for firm i in time period t;
- $A_{i,t-1}$ = Total Assets for firm i at the end of year t-1;
- $\Delta CA_{i,t}$ = Change Current Assets for firm i from time period t-1 to t;
- $\Delta CASH_{i,t}$ = Change Cash Balance for firm i from time period t-1 to t;
- $\Delta CLI_{i,t}$ = Change Current Liabilities for firm i from time period t-1 to t;
- $\Delta STDEBT_{i,t}$ = Change in Short-Term Debt for firm i from time period t-1 to t;

- $DPN_{i,t}$ = Depreciation and Amortization Expense for firm i from time period $t-1$ to t ; and
- $\epsilon_{i,t}$ = (Residuals from the model) or error term.
- The subscripts " i " and " t " refer to firm i and year t

In turn, Non-discretionary accruals ($NDACC_{i,t}$) for firm i in year t are:

$$NDACC_{i,t} = 1/A_{i,t-1} + (\Delta REV_{i,t} - \Delta REC_{i,t}) / A_{i,t-1} + PPE_{i,t} / A_{i,t-1}$$

Where:

- $NDACC_{i,t}$ = Non-Discretionary Accruals for firm i in year t ;
- $A_{i,t-1}$ = Total Assets for firm i at the end of year $t-1$;
- $\Delta REV_{i,t}$ = Change in Revenue for firm i in year t divided by Total Assets for firm i at the end of year $t-1$;
- $\Delta REC_{i,t}$ = Change in Net Receivable for firm i in year t divided by Total Assets for firm i at the end of year $t-1$;
- $PPE_{i,t}$ = Property, Plant and Equipment for firm i in year t divided by Total Assets for firm i at the end of year $t-1$, and
- The subscripts " i " and " t " refer to firm i and year t

Finally, discretionary accruals are estimated as:

$$DACC_{i,t} = TACC_{i,t} - NDACC_{i,t}$$

Where: $DACC_{i,t}$ = Discretionary Accruals for firm i in year t

3.5.2. Regression model specification

All the necessary variables are now defined. The next step is to set up the regression models to test the hypotheses.

The model for testing the effects and presumed relationships between dependent and independent variables considers the most commonly used external audit quality proxy, that is discretionary (abnormal) accrual.

After discretionary accruals have been estimated using the Modified Jones Model, the following model is used to test the hypothesis:

$$AUQLT_{i,t} = \beta_0 + \beta_1[AFSZ_{i,t}] + \beta_2[AFT_{i,t}] + \beta_3[PROVNOS_{i,t}] + \beta_4[AFIS_{i,t}] + \beta_5[CAPRT_{i,t}] + \epsilon_{i,t}$$

Where, for sample firm i at the end of year t :

$AUQLT_{i,t}$ = Audit Quality

$AFSZ_{i,t}$ = Audit Firm Size

$AFT_{i,t}$ = Audit Firm Tenure

$PROVNOS_{i,t}$ = Joint Provision of Audit and Non-Audit Service

$AFIS_{i,t}$ = Audit Firm Industry Specialization

$CAPRT_{i,t}$ = Certified audit professionals in relation to the total number of employees in audit services

β_0 = Constant of the regression

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$, Regression coefficients

$\epsilon_{i,t}$, Regression Residual

To summarize, this chapter deals the approach adopted to examine the effect of main determinants on external audit quality, the type of data used and the techniques employed to collect the data, the sampling mechanism including sample size, the methods utilized to manage and analyze the data, and the process of constructing empirical model with identification and measurement of its components, measurement and selection of variables, expected relations between the dependent and independent variables.

Chapter Four: Data analysis and presentation

In the preceding chapters, the review of relevant literature helped this study to understand the problem and design an appropriate research approach to deal with. The previous chapter also discussed the research design employed to achieve the objectives of the study and to test the research hypothesis there on. In this chapter, the study analyzes the collected data using various statistical tools and presents the results and discussion accordingly. This chapter is organized in two sections. The first sub section presents the result which in turn includes descriptive statistics, correlation analysis and the regression results. The second section is dedicated to the discussion of results.

4.1. Results

In order to achieve the study objective, the researcher adopted various statistical tools to analyze the collected data. Section 4.1.1 presents the descriptive statistics which focuses on the distribution the data, mean, maximum and standard deviation followed by the correlation analysis among the dependent and independent variables in section 4.1.2. Section 4.1.3 presents tests for the classical linear regression model assumptions. The outcomes of the regression result with discussion are presented in section 4.1.4.

4.1.1. Descriptive statistics

The descriptive statistics of the dependent and independent variables for the sample manufacturing share companies were summarized in table 4.1. The total observation for each dependent and independent variable was 60 (data for 12 manufacturing share companies for the period from the year 2009 to 2013).

Moreover, key figures, including mean, median, standard deviation, minimum and maximum values for the dependent and independent variables were reported. This was generated to give overall description about data used in the model and served as data screening tool to spot unreasonable figure.

Table 4.1: Summary of descriptive statistics for dependent and independent variables

Total Observation (n=60)

	DACC	AFSZ	AFT	PROVNOS	AFIS	CAPRT
Mean	0.030399	0.520833	2.681818	0.483398	0.182417	0.315354
Median	0.034092	1.000000	3.000000	0.488000	0.175000	0.270000
Maximum	0.940000	1.000000	5.000000	0.852000	0.356000	0.498000
Minimum	-1.660000	0.000000	1.000000	0.190000	0.000000	0.092000
Std. Dev.	0.360375	0.504852	1.323285	0.157692	0.096808	0.106284
Observations	60	60	60	60	60	60

Source: Own computation from the financial statements using Eviews 6

Note: Discretionary Accrual (DACC), Audit firm size (AFSZ), Audit firm Tenure (AFT), Joint Provision of Audit and Non-Audit Service (PROVNOS), Audit Firm Industry Specialization (AFIS), Certified Audit Professionals Ratio (CAPRT)

Table 4.1 presents summary of statistics for the variables used in this study. It shows that the mean discretionary accrual of the sampled manufacturing companies during the study period is 0.03 which is positively skewed with 0.034092 median with a very large range from a minimum DACC of -1.66 to a maximum of 0.94.

The standard deviation for this variable is 0.360375, indicating that the variation in discretionary accrual of manufacturing share companies under consideration is 36%.

Table 4.1 also reported some interesting descriptive statistics that have to be mentioned regarding scaled variables used in estimating the discretionary (abnormal) component of accrual and the variables in the audit quality model.

Audit Firm Size shows the audit firm grade given by OFAG to classify audit firm's size in to Big (as represented by one) versus non-Big (as represented by zero) while providing external audit service. The mean of this variable for the selected manufacturing share companies stands at 0.52 and the minimum and maximum value for the variable is 0 and 1 respectively with a standard deviation of 0.5 implying that there were moderate differences among the level of audit quality as measured by discretionary accrual across the sample manufacturing share companies.

Audit Firm Tenure, furthermore, another interesting observation is that there was somewhat a higher variation in the number of years the audit firm stay in audit client indicated by the range between 5 and 1 with standard deviation of 1.32. It is especially important to notice that the average period of an audit firm-client relationship is 2.7 years. Hence the highly variated audit firm tenure among manufacturing companies may have significant impact on audit quality of manufacturing share companies that we are going to see in the regression results.

Joint Provision of Audit and Non-audit service, given as the ratio of non-audit service fees to total audit fees, registered a mean value of 0.48 and median of 0.49 with a standard deviation of 0.16 and the ratio of non-audit service fees to total audit fees for the sample was ranged from 0.19 to 0.85. This shows the existence of great variation in joint provision of audit and non-audit service among manufacturing share companies in Ethiopia by the respective external audit firms.

Audit Firm Industry Specialization is measured as the market share of a given external audit firm in manufacturing industry from its total audit clients. This shows a mean of 0.2 with minimum and maximum value of zero and 0.4 respectively for the sampled manufacturing companies during the period. That means, the companies with highest audit quality among the sampled manufacturing share companies practiced 0 level of discretionary accrual for being audited by an industry specialist audit firm. On the other hand, manufacturing share companies with the least audit quality of the sampled companies practiced 0.4 level of discretionary accrual.

Certified Audit Professionals Ratio measures the ratio of total number of certified audit professionals per audit firm to total number of employees in audit service per audit firm. The mean of the certified audit professionals' ratio in this particular study is 0.32 and the maximum and minimum values in the industry for the variable are 0.5 and 0.1 respectively. Hence, from these figures what we understand is that, the sampled manufacturing companies have been audited by the external audit firm with the higher number of certified audit professionals of 0.3 ratio for each company under the study.

4.1.2. Correlation analysis

The purpose of correlation matrix in this particular study was to show the linear association between the dependent and independent variables. As noted in Brooks (2008), correlation

between two variables measures the degree of linear association between them. Values of the correlation coefficient are always ranged between positive one and negative one.

A correlation coefficient of positive one indicates that a perfect positive association between the two variables; while a correlation coefficient of negative one indicates that a perfect negative association between the two variables. A correlation coefficient of zero, on the other hand, indicates that there is no linear relationship between the two variables.

Table 4.2 presents the correlation coefficients for the variables used in the audit quality model. As exhibited in table 4.2, almost all the variables correlated with audit quality except audit firm size (AFSZ) with the highest positive correlation coefficient with CAPRT (ρ 0.677253).

This relationship suggests initial picture as to the nature of the relationship between explanatory variables and audit quality. As the correlation matrix indicates, certified audit professional ratio is the most dominant determinant of external audit quality, which is reflected in the table by the very strong positive correlation between CAPRT and the dependent variable (i.e. DACC). This correlation clearly shows that, as the number of certified auditors in a given audit firm increases, external audit quality of the audit client also moves to the same direction.

Besides, the variables AFT, PROVNOS and AFIS too show a very strong correlation with audit quality.

Table 4.2 also reported significant correlations among the explanatory variables. The highest reported significant correlation coefficient is between PROVNOS and CAPRT with (ρ -0.664522) followed by AFSZ and AFT, AFT and PROVNOS with (ρ 0.471743 and -0.310538) respectively. With respect to the structure of correlations among explanatory variables, it is worth noting the following. First, certified audit professional ratio (CAPRT) is significantly

correlated with PROVLOS. This suggests that audit firms with the higher number of certified auditors tend to provide both audit and non audit service to their audit clients relative to audit firms with lower number of certified auditors as their professional auditors ratio increases. Further the audit firm tenure rate also increases with the size of the audit firm. With regard to the relationship between the joint provision of audit and non audit service and audit firm tenure, this study indicated that PROVLOS is negatively correlated with AFT. It could be possibly argued that the new audit firm tends to be less efficient to provide the joint service since the audit firm may becomes fresh to the client nature of transaction.

Table 4.2: Correlation matrix of dependent and independent variables

Covariance Analysis: Ordinary						
Sample: 2009 2013						
Included observations: 60						
Correlation Probability	DACC	AFSZ	AFT	PROVNOS	AFIS	CAPRT
DACC	1.000000	0.071921	0.325717	-0.792811	0.382652	0.677253
AFSZ	0.071921	1.000000	0.471743	-0.111504	0.120876	0.026020
AFT	0.325717	0.471743	1.000000	-0.310538	0.158066	0.168801
PROVNOS	-0.792811	-0.111504	-0.310538	1.000000	-0.175674	-0.664522
AFIS	0.382652	0.120876	0.158066	-0.175674	1.000000	0.054092
CAPRT	0.677253	0.026020	0.168801	-0.664522	0.054092	1.000000

Source: Own computation from the financial statements using Eviews 6.

4.1.3. Tests for the classical linear regression model (CLRM) assumptions

Different tests were run to make the data ready for analysis and to get reliable output from the research. These tests were intended to check whether the CLRM assumptions are fulfilled when

the explanatory variables are regressed against the dependent variables. Accordingly, the following sub-section presents tests of CLRM.

Test for Heteroscedasticity

It is a test made to check whether error terms variance is constant (homoscedasticity) or not (heteroscedasticity). To test for the presence of heteroscedasticity, the popular white test was employed (Brooks 2008).

One of the important assumptions of the multiple regression reveals that the variance of the disturbance term is constant. This is called the assumption of homoscedasticity.

If disturbance terms (errors) do not have constant variance, they are said to be heteroscedastic (Gujarat, 2003).

In this case as presented in table 4.3, both the F-statistic and Chi-Square versions of the test statistic gave the same conclusion that there is no evidence for the presence of heteroscedasticity in this particular study, since the p-values are considerably in excess of 0.05. Therefore, the null hypothesis that the variance of the errors is constant (homoscedasticity) should not be rejected.

Table 4.3: Heteroscedasticity test: White test

F-statistic	1.037264	Prob. F(5,16)	0.4295
Obs*R-squared	5.385505	Prob. Chi-Square(5)	0.3707
Scaled explained SS	5.800730	Prob. Chi-Square(5)	0.3261

Source: Own computation from the financial statements using Eviews 6.

Test for Autocorrelation

As noted in Brooks (2008) this is an assumption that is assumed the errors are uncorrelated with one another (linearly independent). If the errors are not correlated with one another, it would be

stated that they are ‘auto correlated’ or that they are serially correlated. The simplest and most popular test to detect the existence of autocorrelation is Durbin Watson (DW test). According to Brooks (2008) Durbin-Watson stat (DW-test) statistic near 2 suggest little evidence for auto-correlations and the null hypothesis no auto- correlations would not be rejected.

As seen in the table 4.4, DW- test static for the audit quality model is 1.999302, which is near 2 indicates autocorrelation is not a problem as such lending to fail to reject the null hypothesis that states there are no serial correlations between the error terms.

Table 4.4: Autocorrelation test: Durbin Watson

Variables	DW test static result
All audit firm specific determinants	1.999302

Source: Own computation from the financial statements using Eviews 6.

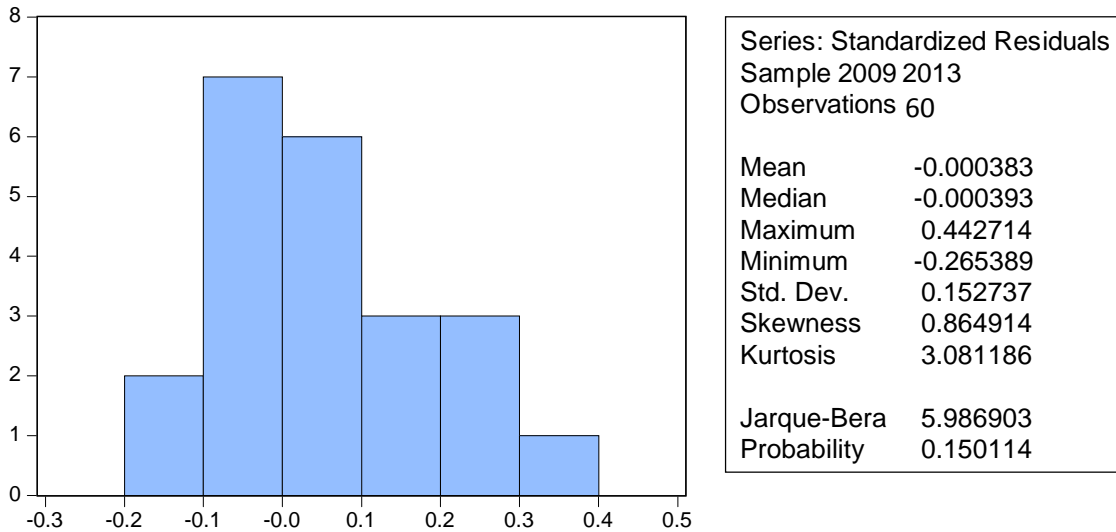
Test for Normality

According to (Brooks 2008) in order to conduct hypothesis test about the model parameter, the normality assumption must be fulfilled. The normality assumption is about the mean of the residuals is zero. In this study, the normality of the data was checked with the popular Bera-Jarque test statistic (Brooks 2008). A normal distribution is not skewed and is defined to have a coefficient of kurtosis of 3. Bera-Jarque formalizes this by testing the residuals for normality and testing whether the coefficient of skewness and kurtosis are zero and three respectively. The Bera-Jarque probability statistics is also expected not to be significant (Brooks 2008).

As shown in figure 4.1, the coefficient kurtosis (3.08) of the data in this particular study was very much closer to 3, and the Bera-Jarque statistic had a P-value of 0.15 implying that the errors are

normally distributed as P value is in excess of 0.05. Thus, the null hypothesis that the errors are normally distributed should not be rejected since the p-value was considerably in excess of 0.05 and the coefficient of kurtosis very much closer to 3.

Figure 4.1: Normality Test



Test for Multicollinearity

Multicollinearity is an assumption of a linear relationship between explanatory variables that creates biased regression model. This problem occurs when the explanatory variables are very highly correlated with each other (Brook, 2008). According to Hair et al. (2006) multicollinearity problem exists when the correlation coefficient among the variables are greater than 0.90.

As it appears in the correlation matrix table 4.5, there were no such high correlation between the explanatory variables. However, Kennedy (2008) suggested that any correlation coefficient above 0.7 could cause a serious multicollinearity problem.

So as to mitigate the above controversy among Hair et al. (2006) and Kennedy (2008), variance inflation factor which is considered as standard statistical technique for testing data for multicollinearity was run (Gujarati 2004). According to this test, multicollinearity problem exist when the pair wise correlation values is in excess of 10 score.

The result in general shows no pair wise correlation values that exceed 10 score indicating multicollinearity non existence among independent variables which would not jeopardize regression (see Appendix 2). The regression analysis is therefore more reliable as indicated by low coefficient of correlation. Therefore, it can be concluded that there is no multicollinearity problem in this particular study.

Table 4.5: Pair-Wise Correlation matrix between explanatory variables

Covariance Analysis: Ordinary					
Sample: 2009 2013					
Included observations: 60					
Correlation Probability	AFSZ	AFT	PROVNOS	AFIS	CAPRT
AFSZ	1.000000	0.471743	-0.111504	0.120876	0.026020
AFT	0.471743	1.000000	-0.310538	0.158066	0.168801
PROVNOS	-0.111504	-0.310538	1.000000	-0.175674	-0.664522
AFIS	0.120876	0.158066	-0.175674	1.000000	0.054092
CAPRT	0.026020	0.168801	-0.664522	0.054092	1.000000

Source: Own computation from the financial statements using Eviews 6.

4.1.4. Results of regression analysis

This study used panel data models where the random effect or fixed effect models could be used to estimate the coefficients of variables. In order to choose the appropriate model for this study the Hausman's misspecification test was used. From the result of the test as indicated in table 4.6, it is found that there was an evidence to fail to reject the null hypothesis of random effect model is appropriate.

More clearly, the p-value of the Hausman's test which is 0.3042 is more than 0.05. Hence, random effect model was used to estimate the regression results in this study.

Table 4.6: Correlated Random Effects - Hausman Test

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.020962	5	0.3042

Source: Own computation from the financial statements using Eviews 6.

The result of the random effect panel regression model used in this study is presented below in table 4.7. According to table 4.7 the R-squared statistics and the adjusted-R squared statistics of the model was 78.1% and 71.3% respectively. The result of this estimation particularly the adjusted-R squared indicates that the changes in the independent variables explain 71.3% of the changes in the dependent variable. This means audit firm size, audit firm tenure, joint provision of audit and non-audit service, audit firm industry specialization and certified audit professionals ratio collectively explain 71.3% of the changes in external audit quality. However, the remaining 28.7% of changes was explained by other factors which are not included in the model. This suggests the model represent a fair prediction of audit quality in Ethiopian manufacturing share

companies. For instance, prior researchers in manufacturing industry audit quality literature using similar models found high explanatory power of their models (for instance Louis and Robinson 2005; 64%, Frankel et al 2009; 67% and Deis and Giroux 2012; 69%).

As can be observed from table 4.7, the null hypothesis of F-statistic (the overall test of significance) that the R^2 is equal to zero was rejected at 1% as the p-value was sufficiently low.

So that the F-statistic value of 0.000081 indicates strong statistical significance, which enhanced the reliability and validity of the model that the researcher used. From the estimated results shown in table 4.7, joint provision of audit and non-audit service had statistically significant impact on audit quality where it was significant at 1% significance level since the p-value for this variable was less than 0.01. On the other hand, audit firm industry specialization was statistically significant factor that influence the quality of audit service in Ethiopian manufacturing share companies at 5% significance level with the p value of 0.0150. While certified audit professionals ratio attains significance at 10% level, audit firm size, audit firm tenure remains insignificant at any conventional level. It is also worth noting from the result that contrary to the expected positive coefficient sign, audit firm size and joint provision of audit and non-audit service reported negative sign.

Table 4.7: Regression results for the determinants of external audit quality

Dependent Variable: DACC

Method: Panel EGLS (Cross-section random effects)

Date: 12/23/14 Time: 13:15

Sample: 2009 2013

Periods included: 5

Cross-sections included: 12

Total panel (unbalanced) observations: 60

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.065351	0.229381	0.284901	0.7794
AFSZ	-0.040814	0.075142	-0.543158	0.5945
AFT	0.012796	0.021720	0.589148	0.5640
PROVNOS	-0.815525	0.217627	-3.747356	0.0018*
AFIS	1.109190	0.407097	2.724631	0.0150**
CAPRT	0.578033	0.322093	1.794617	0.0916***
Effects Specification				
			S.D.	Rho
Cross-section random			0.137001	0.6704
Idiosyncratic random			0.096059	0.3296
Weighted Statistics				
R-squared	0.781116	Mean dependent var		0.036345
Adjusted R-squared	0.712715	S.D. dependent var		0.196100
S.E. of regression	0.103920	Sum squared resid		0.172788
F-statistic	11.41961	Durbin-Watson stat		1.999302
Prob(F-statistic)	0.000081			

The starred coefficient estimates are significant at the 1% (*), 5% (**) and 10% (***) level.

Source: Own computation from the financial statements using Eviews 6.

In addition, table 4.7 also shows that the coefficient of audit firm industry specialization and certified audit professionals ratio had positive coefficients of 1.109190, and 0.578033 respectively. This indicates that there was a direct relationship between these independent variables and external audit quality. Hence, the increase of those two variables would lead to an increase in quality audit service of the companies. Even though, audit firm tenure was insignificant variable, this variable was positively related with audit quality because the coefficient of this variable was positive.

On the other hand, joint provision of audit and non-audit service had a negative relationship with audit quality as far as the coefficients for this variable is negative -0.815525. This indicates that there was an inverse relationship between the aforementioned independent variable and audit quality. Besides, audit firm size was the only insignificant variable with negative relation with audit quality of the manufacturing share companies. Thus, the increase in joint provision of audit and non-audit service variable would lead to decreased in external audit quality.

Generally, the results of the documentary analysis which includes descriptive statistics, correlation matrix, tests for the classical linear regression model, and random panel regression analysis have been presented.

The correlation matrix revealed that there was no serious correlation problem between variables. In addition, the results of the tests for the classical linear regression model also showed as the data fit the basic assumptions of CLRMs.

In the next section the effect of each independent variable tested under this study is discussed and analyzed based on the theoretical predictions, prior empirical studies and hypothesis formulated for this study.

4.2. Discussions of regression results

Section 4.1 presented mainly the outputs of documentary analysis for the selected Ethiopian manufacturing share companies using their financial statements. Accordingly, the following sub sections discuss the results and attempts to test the research hypotheses presented in chapter three.

Research hypothesis testing and interpretation of the regression results

The purpose of this section is to discuss the results obtained from different data sources. The data were analyzed in light of the research objective and hypotheses stated. Hence, the analysis is based on the results of the documentary analysis mainly using the results of the panel least square regression analysis between the dependent variable and the independent variables for the selected audit firm-specific factors that have an impact on manufacturing share companies external audit quality.

The selected audit firm-specific factors are audit firm size, audit firm tenure, joint provision of audit and non-audit service, audit firm industry specialization and certified audit professionals ratio.

4.2.1. Audit firm size and external audit quality

Audit firm size was considered to be one of the key factors that can affect the external audit quality of manufacturing share companies in Ethiopia. Signalling theory predict a positive relationship between audit firm size and audit quality for at least two reasons: first, big size audit firms exhibit higher levels of ethical reasoning and attract a greater variety of clients because of their appeal on quality grounds, and the associated benefits their reputation brings; second, big size audit firms usually thought to have higher the number of clients and the greater the

probability that the range of services provided is bigger. This minimizes dependency and results in providing good quality audit service on particular clients.

However, there was no support of size of audit firm influencing the level of quality of audit service of manufacturing companies in Ethiopia. The results of the regression analysis shown in table 4.7 revealed that there was a weak relationship between size of audit firm and audit quality, with a regression coefficient of -0.040814, t-statistic of -0.543158 and P-value of 0.5945.

This indicates that audit firm size was insignificant even at 10% to further the relationship with audit quality since the p value is more than 0.1. The insignificant result indicates that audit firm size was not considered as a proper explanatory variable of audit quality in Ethiopian manufacturing companies. Hence the result is inconsistent with the hypothesis of the study.

This insignificant result was consistent with the findings of Louis and Robinson (2005), whose study suggested that audit firm size should not be a prime determinant of higher level of audit quality that as long as professional standards and qualifications are maintained throughout the sector; otherwise small size audit firms may be replaced simply because they are less well known, even though they may well be providing as high or higher audit quality services.

4.2.2. Audit firm tenure and external audit quality

As it is presented in table 4.8, the coefficient of audit firm tenure was positive as anticipated, but it was statistically insignificant even at 10%, thus, the effect of audit firm tenure on Ethiopian manufacturing share companies' external audit quality is not significant, with a regression coefficient of 0.012796, t-statistic of 0.589148 and P-value of 0.5640. The parameter of audit firm tenure which was 0.012796 in the result of panel regression model indicated that, audit firm tenure was positively related as expected even if it had insignificant impact on the audit quality.

The correlation matrix in table 4.2 also gave the same conclusion that there was positive association between the audit firm tenure and external audit quality. The positive parameter is in line with the idea that states as lengthen the audit firm-client relationships leads to the reduction in audit quality because the auditors' become more prone to the dangers in order to 'turn a blind eye' on inappropriate managerial actions. Accordingly, it can be reasoned that the closeness developed due to long-term tenure between the audit firm and the client, pushes the auditor to become less skeptical towards auditors' rigorousness in terms of the audit procedures opted by the auditor and the accounting practices adopted by the client. Furthermore, the Institute of Chartered Accountants in England and Wales (2005) stated that extended audit firm tenure may decrease auditor independence and the audit firm's adherence to ethical principles such as professional skepticism and objectivity on long term engagements, this finding posits that the fostering of this close relationship has led question mark on the independence of auditors and ultimately question mark on audit quality.

However, the insignificant parameter indicates that the audit firm tenure does not affect Ethiopian manufacturing share companies' external audit quality during the study period. Thus, the hypothesis that states as there is a significant positive relationship between audit firm tenure and audit quality was to be rejected or the data did not support the hypothesis.

4.2.3. Joint provision of audit and non-audit services (NAS) and external audit quality

The ratio of non-audit service fees to total audit fees, which provides information on the provision of non-audit services relative to audit services, was negative and statistically significant at 1% significance level (p-value=0.0018) which is in line with a prior expectation.

Though negative sign confirms that an increase in the ratio of non-audit service fees to total audit fees would certainly lead to a decrease in audit quality as measured by discretionary accrual, the significant result indicates that joint provision of audit and non-audit services was considered as a proper explanatory variable of external audit quality in Ethiopian manufacturing share companies.

In terms of the joint provision of audit and non-audit Services (NAS) impact on audit quality, previous studies of Srinidhi and Gul (2007) showed a positive result and this implies that during the period of the study, NAS may constitute an important source of information that enriches auditor's knowledge about the client's operations beyond the knowledge gained simply through the audit process.

However, the result of this study clearly shows as the joint provision of audit and non-audit Services (NAS) has a negative impact on external audit quality. The possible reason for this may include NAS can exacerbate the economic bond between an audit firms and client which create incentives for audit firms to compromise their objectivity, for instance, waive audit adjustments, to retain audit clients and this can be detrimental for audit quality because the auditor is unwilling to challenge a client's management on questionable accounting choices for fear of losing lucrative NAS fees. It may be that the level of client pressure would increase and auditor becomes less concerned with the quality of external audit.

Furthermore, the provision of NAS could create potential conflict of interest faced by audit firms who receive large consultancy fees from their audit clients which potentially threatening auditors' objectivity and results audit firms to act more favorably toward those clients from whom they receive higher NAS fees.

Therefore, one can conclude as the likely reason for the negative relationship between the joint provision of audit and non-audit services and external audit quality might be that manufacturing share companies in Ethiopia had conflict of interest that arises from the provision of non-audit services to audit clients is the fact that is so doing the audit firm is really serving two different set of clients; management consulting services, shareholders and all those who rely on the audited financials and the firm's opinion in deciding whether to invest in the case of audit.

So, in these cases the quality of external audit work will be questionable.

4.2.4. Audit firm industry specialization and external audit quality

Continuing to the audit firm industry specialization variable, Ethiopian manufacturing share companies' external audit quality was positively related to audit firm industry specialization (AFIS), mainly through the impact of the increased knowledge about the industry, which eliminates errors in the audit resulting in an increased audit quality. The audit firm industry specialization was statistically significant at 5% significance level.

This significant positive relationship between audit firm industry specialization and audit quality correspond with various previous research findings like Schauer (2008), Meyer (2009), and Reichelt and Wang (2010) which suggest that measures are based on the market share of a firm, because industry expertise is obtained by repetition of the audit task in similar settings and when auditors have a large group of clients in the same industry, their expertise increases, and this leads to better audit quality for the client in the same year.

Moreover the results were also consistent with the existed reality in the Ethiopian manufacturing share companies, which shows the existence of a direct relationship between AFIS and companies audit quality that, audit firms working within their industry specialization are more

effective at detecting errors in staff working papers during the audit review process, all of which can serve to enhance overall audit quality.

Correspondingly, the coefficient 1.109190 with t-statistic 2.724631 and p-value 0.0150 in the operational panel regression model clearly indicates that, audit firm industry specialization is a quite substantial determinant that can affect Ethiopian manufacturing share companies audit quality certainly.

As an audit firm tends to view an industry through the eyes of several (possibly many) clients, this add value to the service provided to that client above and beyond the knowledge and insights the client itself could provide. This then assists the audit firms to constrain opportunistic reporting of discretionary accruals with the expected benefits being improved audit quality.

Besides, practical experience which significantly expands the base professional knowledge is a key to delivering high audit quality of companies serves as another reason for the existence of strong constructive relationship between audit firm industry specialization and companies audit quality. As a result, in the periods under study the determination ability of this factor increases at an increasing rate and it had clearly a positive effect on external audit quality of Ethiopian manufacturing share companies.

4.2.5. Certified audit professionals ratio and external audit quality

Certification is the percentage of external auditors in the external audit function who have the ACCA certification. The ratio of certified audit professionals in relation to the total number of employees in audit services which is a measure of certified audit professionals ratio (CAPRT) has a positive effect on audit quality.

In addition, this variable was also statistically significant at 10% significance level (p-value=0.0916) in explaining the variability in external audit quality of manufacturing share companies in Ethiopia.

The coefficient of the CAPRT is 0.578033 and is relatively high even at 10% significant level, showing that an increase in number of certified audit professionals in a given audit firm will assure usability of certification ratio as audit quality driver. This is, which is in agreement with a prior expectation as an audit firm with higher number of certified audit professionals is able to perform relevant roles or tasks to the required standard more effectively and has more capabilities and competence to deal with problems arising from unforeseen accounting and reporting processes, thus the higher the certification ratio, the lower the incidence of discretionary accrual achieving the higher audit quality. Accordingly, the findings of the regression result demonstrates certified audit professionals ratio as a vital driver of Ethiopian manufacturing share companies' external audit of quality.

To summarize, this chapter discussed the results of the documentary analysis results, and then presented the discussions of these results using the appropriate method.

Accordingly, the chapter presents the results of the hypotheses of the independent variables tested on the dependent variable (AUQLT). Empirical results provide detailed discussions on sample descriptive statistics and mean comparison between AUQLT and independent variables (audit firm size, audit firm tenure, joint provision of audit and non-audit service, audit firm industry specialization, certified audit professionals ratio) followed by correlation analysis to determine the relationship between dependent variable and towards independent variables.

Regression analysis was also used to describe the external audit quality among manufacturing share companies. The results show that audit firm industry specialization, joint provision of audit and non-audit service and certified audit professionals ratio are the most important factors affecting external audit quality of manufacturing share companies in Ethiopia respectively in order of their degree of influence.

However, the results show that there is no relationship between audit firm size and audit quality of Ethiopian manufacturing share companies. Similarly, the results show that there exists no relationship between audit firm tenure and audit quality of manufacturing companies in Ethiopia.

The next chapter presents conclusions and recommendations of the study.

Chapter Five: Conclusions and recommendations

The basic intent of this chapter is to present the overall overviews of the research by summing the main findings of the analysis part and give future research directions. Accordingly, the chapter starts its discussion by briefly sum up the overviews of the study and its main findings. In section two based on the study finding the researcher highlight some recommendations for the target populations the study pivoting on.

5.1. Conclusions

Reliable information is necessary if managers, analysts, brokers, regulators, shareholders and academics are to make informed decisions about resource allocation. As a consequence of the rising number of accounting scandals of famous global players such as the highly publicized collapse of Enron debacle, the failure of Andersen and WorldCom's massive fraud make clear that high quality external auditing is one of the central components of sound corporate governance.

The basic question is whether there exists highest audit quality and what might be its determinants. Extensive research has attempted to identify these factors; however, the findings of prior empirical studies have provided varying evidence related to the impact of these factors on audit quality. Furthermore, the majority of these studies have been conducted in developed countries that have many companies' similarities.

In light of the above, the main objective of this study was to examine the determinants of external audit quality in the Ethiopian manufacturing share companies.

The study used audit firm variables peculiar to the manufacturing share companies that are commonly found to influence the variation in audit quality. It also examined whether the selected audit firm determinant factors significantly affect audit quality by using discretionary (abnormal) component of accrual as proxy for earning management (external audit quality measure). To achieve the intended objective the study used quantitative approach. The quantitative data were collected through structured reviews of document from a sample of twelve manufacturing share companies found in Ethiopia over the time period from 2009-2013. The collected data were analyzed by employing panel least square regression analysis model using statistical package 'EVIEW 6'.

The adjusted value of R square (0.712715) indicates that external audit quality of manufacturing share companies is nearly 71.27% dependent on independent variables (audit firm size, audit firm tenure, joint provision of audit and non-audit service, audit firm industry specialization, and certified audit professionals ratio). Therefore, it implies that audit firm factors are important determinants of audit quality of manufacturing share companies in Ethiopia to the extent on average 71.27% of the change in audit quality of the companies can be explained by the selected audit firm characteristics.

The results of regression analysis reveal that audit firm industry specialization, joint provision of audit and non-audit service and certified audit professionals ratio are statistically significant factors influencing the variation in audit quality in the Ethiopian manufacturing share companies respectively in order of their degree of influence over the period of 2009 to 2013.

Despite of the above, audit firm size and audit firm tenure were factors that had little or no impact on the external audit quality of Ethiopian manufacturing share companies as far all those variables were not significant even at 10% significance level.

5.2. Recommendations

Based on the findings of the research the following recommendations are provided:

- The analyses indicated that the variables of the joint provision of audit and non-audit service, audit firm industry specialization and certified audit professionals ratio were significant key drivers of external audit quality of manufacturing share companies in Ethiopia. As a result, this is a clear signal to all manufacturing share companies in Ethiopia that they cannot ignore these audit firm characteristics in appointing the external audit firm.
- Since the manufacturing sector, is characteristically different by the presence of vigilant account transactions, it is recommendable to consider factors which are important to the external audit quality. In fact, this study find that companies do consider some of these audit firm attributes but it still remains with regard to some of these important attributes. The manufacturing sector internationally lessened a lot as to how earning management could potentially threaten their survival/going concern. Further, Ethiopian manufacturing share companies significantly increased the volume of their trade activities by devoting a large sum of money which potentially increases the companies risk exposure by threatening various stakeholders' interest.

Therefore, the researcher recommends companies to hire specialist audit firm for the better alignment of the audit standards which would help companies in terms of avoiding costly abnormal accrual associated with audit failure.

- The study found that audit firms with higher number of certified audit professionals in audit service provide a better quality audit than the smaller counter parties.

Therefore, the researcher recommends manufacturing share companies to get audited by such audit firms thereby enhancing their financial transparency through better quality audit.

- This study found that Ethiopian manufacturing share companies actually engage in earning management activities but external auditors failed to inspect such practices.

To curb such management opportunistic behavior of manufacturing share companies the researcher recommends companies to hire proficient audit firm to conduct intensive audit. Further the researcher recommends interested users such as shareholders to reconsider how companies external audit quality is determined.

- Finally, as suggestions for future research, the researcher recommends researchers to scrutinize audit quality and audit client factors in non-financial industries beyond the Addis Ababa manufacturing sector and not only on share manufacturing firms' but also small and medium sectors.

References

- Abbott L.J., and G.F. Peters, 2002. Audit committee characteristics and financial misstatement: A study of the efficacy of certain blue ribbon committee recommendations, Working paper, University of Memphis.
- Abu Bakar, N. B., Abdul Rahman, A. R., & Abdul Rashid, H. M., 2005. Factors Influencing Auditor Independence: Malaysian Loan Officers' Perceptions: Managerial Auditing Journal.
- Amsalu Gelaneh, 2011. The Impact of Extended Audit Tenure on Auditors Independence and Audit Quality: An Empirical Study on Ethiopian private audit firms, Addis Ababa University.
- Ang, J.S., and Cole, R.A., 1993. Agency costs and ownership structure. Journal of Finance.
- Arya, A., G., Jonathan, and S., Shyam., 2003. Are unmanaged earnings always better for shareholders?. Accounting Horizons.
- Bagnoli, M., Penno, M., and Watts, S.G., 2001. Auditing in the presence of outside sources of information: Journal of Accounting Research.
- Baker, C.R., and D.M., Owsen., 2002. Increasing the role of auditing in corporate governance: Critical Perspective on Accounting.
- Barth, M.E., J.A. Elliott, and M.W. Finn. 1999. Market rewards associated with pattern of increasing earnings. Journal of Accounting Research.
- Bartov, E., Gul, F.A., and Tsui, J.S.L., 2010. Discretionary Accruals Models and Audit Qualifications: Journal of Accounting and Economics.
- Basel Committee., 2008. External Audit Quality and Banking Supervision: Bank for International Settlement.
- Bauwhede, H. V., Willekens, and A. Gaeremynck, 2007 Audit quality, public ownership and firms' discretionary accruals management, working paper.
- Beattie, V., 2012. Competition Commission Statutory Audit Market investigation. Initial review of relevant academic literature.
- Becker, C.L., DeFond, M.L., Jiambalvo, J. and Subramanyam, K.R.,2004. The effect of audit quality on earnings management: Contemporary Accounting Research.

- Bedard, J.C, K. M. Johnstone, and E. F. Smith, 2002. Audit Quality Indicators: A Status Update on Possible Public Disclosures and Insights from Audit Practice: *The International Journal of Auditing*.
- Benkel, M., Mather, P., and Ramsay, A., 2006. The Assassination between External auditing and Earnings Management: The Role of Independent.
- Boynton, C., Dobbins, P., and Plesko, G., 2002. Earnings Management and the Corporate Alternative Minimum Tax: *Journal of Accounting Research*.
- Brooks, C., 2008. *Introductory Econometrics of Finance*, 2nd ed., the ICMA Center, University of Reading, CAMBRIDGE University press.
- Brown, R., 1999. *A History of Accounting and Accountants: Edinburgh, TT and EC Jack 1905*; reprinted London.
- Burgstahler, D., and I. Dichev. 1997. Earnings management to avoid earnings decreases and losses. *Journal of Accounting and Economics*.
- Cadman, B., & Stein, M., 2010. Industry Specialization and Auditor Quality in U.S Markets. Working Paper.
- Cahan, S. R. 1992. The effect of antitrust investigations on discretionary accruals: A refined test of the political-cost hypothesis. *The Accounting Review*.
- Careello, J.V., 2008. The effect of audit firm tenure and provision of non-audit services on fraudulent financial reporting, *Auditing. Evidence from Tanzanian, Zimbabwean and Nigerian industrial firms: Journal of Practice and Theory*.
- Carson, E., and Dowling, 2010. The production of audit services: the relationship between audit support system design and audit pricing by global audit firm networks.
- Causholli, M., D. Chambers, and J. L. Payne, 2013. Does the combination of pressure on auditors to sell non-audit services, and clients' willingness to buy future services, result in reduced audit quality? :Working paper, University of Kentucky.
- Chang, X., Dasgupta, S., and Hilary, G., 2003. The effect of auditor quality on financing decisions: *The Accounting Review*.
- Chen, K. Y., & Zhou, J., 2005. Audit quality and earnings management for Taiwan IPO firms: *Managerial Auditing Journal*.
- Choi, J. H. et al., 2010. Audit Office Size, Audit Quality and Audit Pricing: *Journal of Practice & Theory*.

- Chow, C. W., 1982. The demand for external auditing: size, debt and ownership influences. *The Accounting Review*.
- Chung, H., And S. Kallapur., 2003. Client importance, non audit services, and abnormal accruals. *The Accounting Review*.
- Costouros GJ., 1978. Auditing in the Athenian state of the golden age. (500–300 BC). *The Accounting Historian Journal*.
- Creswell, J., 2009. *Qualitative, quantitative and mixed methods approaches*, third edition, SAGE Publication Inc., United State of America.
- Creswell, JW, 2003. *Research design: qualitative, quantitative and mixed methods approaches*, 2nd edn, Sage Publications, California.
- Daniels, B.W., and Booker, Q., 2009. The effects of certified audit professionals' rate, provision of assurance services, client industry specialization perceived auditor independence and audit quality. *Research in Accounting Regulation*.
- Davidson, R. A., 1993. A Note on the Association between Audit Firm Size and Audit Quality: *Contemporary Accounting Research*.
- Davidson, R., Goodwin-Stewart, J., and Kent, P., 2005. Internal Governance Structures and Earnings Management. *Accounting and Finance*.
- De, Angelo, L. E., 1981. Auditor Size and Audit Quality: *Journal of Accounting and Economics*.
- De, Angelo, L.E., 1981. Auditor independence, 'low balling' and disclosure regulation: *Journal of Accounting & Economics*.
- Dechow, P., and I. Dichev, 2002. The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*.
- Dechow, P., Sloan, R., and Sweeney, A., 2007. *Detecting Earnings Management: The Accounting Review*.
- Deegan, C., and J. Unerman., 2011. *Financial Auditing Theory*. McGraw.Hill.
- DeFond, M.L., and Jiambalvo, J., 2004. Debt Covenant Violation and Manipulation of Accruals: Accounting Choice in Troubled Companies: *Journal of Accounting and Economics*.
- DeFond, M. L., Raghunandan, K., & Subramanyam, K. R., 2009. Do Non-Audit Service Fees Impair Auditor Independence? Evidence from Going Concern Audit Opinions: *Journal of Accounting Research*.

- Deis and Giroux, 2012. Audit partner tenure, audit firm tenure, and discretionary accruals : Does long audit tenure impair earnings quality?. Evidence from Taiwanese private companies.
- Denzin, N K and Lincoln, Y S 1994, Introduction: Entering the field of qualitative research.
- Diana and Magda, 2010. The impact of auditor rotation on the audit quality: A field study from Egypt, Working paper.
- DiMaggio, P., and Powell, W., 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*.
- Donaldson, T., and L. E., Preston., 1995. The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. *The Academy of Management Review*.
- Dowling, C., and Leech, S. A., 2011. Enabling Audit Process Quality Through Audit Support System Design.
- Ebrahim, T., 2011. Auditing quality, auditor tenure, client importance, and earnings management: additional evidence, Rutgers University.
- Eilifsen, A. and McKee, T. E., 2006. "Current materiality guidance for auditors": The CPA Journal.
- Eisenhardt, K.M., 1988. Agency-and institutional-theory explanations: the case of retail sales compensation. *Academy of Management journal*.
- Epstein, M. J., & Geiger, M. A., 1994. Investor Views of Audit Assurance: Recent Evidence of the Expectation Gap. *Journal of Accountancy*.
- Federal Government of Ethiopia., 1996. Federal Government of Ethiopia Financial Administration, Proclamation No. 57/1996. 008.
- Felix, W., Gramling, A., & Maletta, M., 2005. The Influence of Non-Audit Service Revenues and Client Pressure on External Auditors' Decisions to Rely on Internal Audit: Contemporary Accounting Research.
- Fowler, F.J, 1987, Survey research methods, third edition, U.S.A, SAGE publication Inc.
- Francis, 2011. A Framework for Understanding and Researching Audit Quality, *Auditing: A Journal of Practice & Theory*.
- Francis, J. R., & Dechow, W., 2008. The Joint Effect of Investor Protection and Big 4 Audits on Earnings Quality around the World. *Contemporary Accounting Research*.

- Francis, J. R., 1994. What Do We Know About Audit Quality?: The British Accounting Review.
- Francis, J. R., and Yu, M. D., 2009. Big 4 office size and audit quality. The Accounting Review.
- Frankel, R. M., M. F. Johnson, and K. K. Nelson, 2009. "The Relation Between Auditors' Fees for Non-Audit Services and Earnings Management." Evidence from Nigerian medium-sized manufacturing companies: The Accounting Review.
- FRC, 2008. The Audit Quality Framework. UK Financial Reporting Council (FRC).
- Freeman, R. E., 1984. Strategic management: A stakeholder approach. Boston: Pitman.
- Freeman, R. E., A. C., Wicks, and B., Parmar., 2004. Stakeholder theory and "the corporate objective revisited": Organization Science
- Gaeremynck, A., 2010. "CPA firm size, Audit Fee, non-audit services, and firms' discretionary accruals management": The International Journal of Accounting.
- Gaver, J.J., K.M. Gaver and J. R. Austin. 1995. Additional evidence on bonus plans and income management. Journal of Accounting and Economics. Sweeney, A. 1994. Debt covenant violations and managers accounting responses. Journal of Accounting and Economics.
- Goodwin, J., and J. L. Seow., 2009. The influence of External Auditors on the quality of financial reporting and auditing: Perceptions of auditors and directors in Singapore. Accounting and Finance.
- Grambling, A. A., and Khurana, I. K., 2010. The Association Between Audit Firm Industry Experience and Financial Reporting Quality. Working paper. Georgia State University.
- Gray, R., D. Owen, and C., Adams., 1996. Accounting and Accountability: Changes and challenges in corporate social and environmental reporting. Prentice Hall London.
- Guba, E G and Lincoln, Y S 1994. competing paradigms in qualitative research, In: Denzin N K & Lincoln Y S (eds), Handbook of Qualitative Research.
- Guba, E., & Lincoln, Y. 1982. "Epistemological and methodological bases of naturalistic inquiry" Educational Communications and Technology Journal.
- Gujarati, DN 2004, Basic Econometrics, 4th edition, McGraw Hill, Boston.
- Hair JF., Black, WC.,Babin,BJ., Anderson, RE., and Tatham,RL.,2006. Multivariate data analysis. Pearson education, New Jersey.
- Hajizadeh, S., Rahimi, M., 2012, Audit Firm Size and Information Content of Earnings: New Evidences from Iran. International Bulletin of Business Administration.

- Han, J.C.Y., and S-W. Wang. 1998. Political Costs and Earnings Management of Oil Companies during the 1990 Persian Gulf Crisis. *The Accounting Review*.
- Hay, D., & D. Davis, 2004. The voluntary choice of an auditor of any level of quality. *Auditing: A Journal of Practice and Theory*.
- Healy, P. & K. Palepu., 2008. Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*.
- Healy, P.M. 1985. The impact of bonus schemes on the selection of accounting principles. *Journal of Accounting and Economics*.
- Healy, P.M., and J.M., Wahlen., 1999. A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*.
- Hendriksen, E., 1970. *Auditing Theory*. Homewood. Richard D. Irwin.
- Hennes, K., A. Leone, and B. Miller., 2012. *Accounting Restatements and Auditor Accountability Working paper*, American Accounting Association.
- Hoitash, R, Markelevicg, A & Barragato, C.A., 2007. Auditor fees and audit quality, *Managerial Auditing Journal*.
- Hodge, F., 2006. 'Investors' perceptions of earnings quality, auditor independence, and the usefulness of audited financial information': *Accounting Horizons*.
- Holthausen, R.W., D.F., Larkers, and R.G., Sloan., 1995. Annual bonus schemes and the manipulation of earnings: *Journal of Accounting and Economics*.
- Huang, P. et al., 2008. Ethical Management, Corporate Governance, and Abnormal Accruals: *Journal of Business Ethics*.
- IAASB. 2011. *International Audit Quality: an IAASB perspective*. International Auditing and Assurance Standards Board (IAASB).
- IAASB. 2012. *Audit Quality: An International Framework. Draft Paper, Version I*, The International Auditing and Assurance Standards Board (IAASB).
- IASB, 2008. *Exposure Draft on an improved Conceptual Framework for Financial Reporting Chapter 1 & Chapter 2*.
- IASB. 2010. *Conceptual Framework for Financial Reporting*. International Accounting Standards Board.

- IFAC, 2003. Handbook of international audit, assurance, and ethics pronouncements. International Federation of Accountants.
- IFAC, 2007. Audit Quality and International Standards on Auditing. New York.
- IFAC. 2005. Code of Ethics for Professional Accountants. New York, International Federation of Accountants.
- Institute of Chartered Accountants in England and Wales (ICAEW). 2002. 'Audit Quality'. London: Institute of Chartered Accountants in England and Wales (ICAEW) Auditing and Assurance Faculty.
- Iskandar, T. M., Rahmat, M. M., & Ismail, H., 2010. The Relationship between Audit Client Satisfaction and Audit Quality Attributes: Case of Malaysian Listed Companies: International Journal of Economics and Management.
- Jackson, A.B., Moldrich, M., & Roebuck, p., 2008. Mandatory audit firm rotation and audit quality, Managerial Auditing Journal.
- Jensen, M. C., and W. H. Meckling., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics.
- Johnson, R. B, and Onwuegbuzie, A.J, 2004. 'Mixed Methods Research: A Research Paradigm Whose Time Has Come'. American Educational Research Association.
- Jones, J., 1991. Earnings management during import relief investigations. Journal of Accounting Research.
- Jonker, J., and Pennink B., 2010. The Essence of Research Methodology: A concise guide for Masters and PhD students in management science.
- Kao, L., and Chen, A., 2004. The Effects of Audit Quality on Earnings Management.
- Kennedy, P., 2008. Guide to econometrics, 6th edition, Blackwell publishing, manden.
- Kiel, G., and Nicholson, G., 2003. Board Composition and Corporate Performance: How the Australian Experience Informs Contrasting Theories of Corporate Governance. Corporate Governance: An International Review.
- Kilgore, A, Radich, R., Harrison, G., 2013. The Relative Importance of Audit Quality Attributes: Australian Accounting Review.
- Kilgore, A., 2008. Corporate Governance, Professional Regulation and Audits Quality. Malaysian Accounting Review.

- Knechel W.R., and Vanstraelen A., 2013. The relationship between auditor tenure and audit quality implied by going concern opinions. *Auditing: A Journal of Practice and Theory*.
- Knechel, R. W., 2001. *Auditing –assurance & risk*. 2nd edition. South-western, Thomson Learning, Canada.
- Knechel, W. R., 2009. *Audit Lessons from the Economic Crisis: Rethinking Audit Quality*, Working paper, Maastricht University.
- Krishnan, and Schauer,. 2000. Are large size audit firms more accurate than small size audit firms?: *Accounting and Business Research*.
- Lam, S., & Chang, S., 1998. Auditor Service Quality and Auditor Size: Evidence from Initial Public Offerings in Singapore: *Journal of International Accounting Auditing and Taxation*.
- Lawrence, A., Minutti-Meza, M. and Zhang, P., 2011. ‘Can Big 4 versus Non-Big 4 Differences in Audit-Quality Proxies Be Attributed to Client Characteristics?’ *The accounting review*.
- Lennox, C. S., 1999. Audit Quality and Auditor Size: An Evaluation of Reputation and Deep Pockets Hypotheses: *Journal of Business Finance and Accounting*.
- Leuz, C., Nanda, D., and Wysocki, P.D., 2003. Earnings Management and Investor Protection: An International Comparison. *Journal of Financial Economics*.
- Lin, W., Schauer P. C., and Hwang, M. I., 2010. Audit Quality, Corporate Governance, and Earnings Management: A Meta-Analysis: *International Journal of Auditing*.
- Louis, H., and D. Robinson., 2005. Do managers credibly use accruals to signal private information Evidence from the pricing of discretionary accruals around stock splits. Evidence from Korean manufacturing share companies. *Journal of Accounting and Economics*.
- Mande, V., 2007. Do lengthy auditor tenure and the provision of non-audit services by the external auditor reduce audit report lags? Evidence from Jordanian industrials companies: *International Journal of Auditing*.
- Mattingly, J.E., Steven, A., and Olsen, H.L., 2009. Corporate Implications of the Effects of Stakeholder Management on Financial Reporting. Piot, C. 2001: Agency Costs and Audit Quality: Evidence from France. *The European Accounting Review*.
- Mekonnen Aboneh (2011), *The Impact of private ownership on quality of accounting reports on financial Reporting Quality: An Empirical Study on Privately owned companies*, Addis Ababa University.

- Mertens, D. M. 2003. "Mixed methods and the politics of human research: The Transformative-emancipatory perspective. In: A. Tashakkori & C. Teddlie (Eds.)", Handbook on mixed methods in the behavioral and social sciences.
- Meyer, J.W., and Rowan, B., 1977. Institutionalized Organizations: Formal Structure as Myth and Ceremony. *The American Journal of Sociology*.
- Meyer, K., 2009. Industry Specialization and Discretionary Accruals for Big 4 and Non-Big 4 Auditors. A Ph.D. Thesis, Department of Accounting, The Florida State University.
- Meyer, M.J., Rigsby, J.T., and Boone, J., 2006. The impact of auditor–client relationships on the reversal of first-time audit qualifications. Evidence from Australian companies: *Managerial Auditing Journal*.
- Mihret, DG, James, K & Mula, JM, 2009. Accounting and auditing professionalization processes amidst alternating politico-economic order of Ethiopia, AFAANZ conference, Adelaide, Australia, July 2009.
- Miller, D. 2000, *Qualitative Research Course Packet*. University of Nebraska – Lincoln.
- Morris, R. D., 1987. Signalling, agency theory and accounting policy choice. *Accounting and Business Research*.
- Najjar, V.E., W.F. Messier, and J. Lynch., 2011. Error detection by industry-specialized teams during the sequential audit review. Evidence form Kenyan industrial companies: *Journal of Accounting Research*.
- Newbold, P., Carlson, W.L., Thorne, B., 2007. *Statistics for business and economics*. Pearson Prentice Hall, Upper Saddle River, N.J.
- Office of the Federal Auditor General 2009, *Ethiopian Code of Ethics for Professional Accountants*.
- Oliver, C., 1991. Strategic responses to institutional processes. *Academy of management review*.
- Palmrose, and Scholz, S., 2000. Restated financial statements and auditor litigation. Working paper, University of Southern California, October 2000.
- Palmrose, Z. V., 1988. *An Analysis of Auditor Litigation and Audit Service Quality: The Accounting Review*.
- Patrick Dattalo, 2008. *Determining sample size, balancing power, precision, and practicality*, Oxford University press.

- Pentland, B.T., 1993. 'Getting Comfortable with the Numbers: Auditing and the Micro-Production of Macro-Order'. *Accounting, Organizations and Society*.
- Pentland, B.T., 2000. 'Will Auditors Take Over the World?: Program, Technique and the Verification of Everything'. *Accounting, Organizations and Society*.
- Pfeffer, J., 1982. *Organizations and organization theory*. Boston. Pitman Publishing.
- Piot, C., 2001. Agency Costs and Audit Quality: Evidence from France. *The European Accounting Review*.
- Piot, C. and Janin, R., 2011. Audit quality and earnings management in France, working paper, Piere Mendes France University
- Raghunandan, K., Read, W. J., & Whisensnt, J. S., 2003. 'Initial evidence on the association between non audit fees and restated financial statements'. *Accounting Horizons*.
- Reichelt, K. J., & Wang, D., 2010. National and Office-Specific Measures of Auditor Industry Expertise and Effects on Audit Quality: *Journal of Accounting Research*.
- Ronen, J. and V. Yaari., 2008. *Earnings management emerging insights in theory, practice and research*. Springer: New York.
- Salehi, M., 2011. Non-Audit Service and Audit Independence: Evidences from Iran: *International Journal of Business and Management*.
- Sankar, M.R., and K.R. Subramanyam., 2001. Reporting discretion and private information communication through earnings: *Journal of Accounting Research*.
- Schauer, P. C., 2008. The Effects of Industry Specialization on Audit Quality: An Examination Using Bid-Ask Spreads. *Journal of Accounting & Finance Research*.
- Schipper, K., 1989. Commentary on earnings management. *Accounting Horizons*.
- Schneider, A., Church, B. K., & Ely, K. M., 2010. Non-Audit Services and Auditor Independence: A Review of the Literature. *Journal of Accounting Literature*.
- Scott, W. R., 2008. Approaching adulthood: the maturing of institutional theory. *Theory and Society*.
- Sharma, V. D., 2011. Non-Audit Services and Knowledge Spillovers. Evidence from Tunisian manufacturing companies: *Journal of Business Finance & Accounting*.
- Srinidhi B, Gul F, 2007. The differential effects of auditors' non audit and audit fees on accrual quality. *Contemporary Accounting Research*.

- Subramanyam, K.R., 1996. The pricing of discretionary accruals: *Journal of Accounting and Economics*.
- Sutton, S. G., 1993. Toward an Understanding of the Factors Affecting the Quality of the Audit Process: *Decision Sciences*.
- Tate, S. L., 2003. Differences in Financial Statement and Compliance Audit Assessments between Big 5 and Non-Big 5 Auditors. Working Paper, the International Symposium on Audit Research, Michigan State University.
- Teoh, S.H., Welch, I., and Wong, T. J., 2009. Earnings Management and the Underperformance of Initial Public Offerings: *Journal of Finance*.
- The Institute of Chartered Accountants in England & Wales, 2005. Audit Quality Agency theory and the role of audit. *Audit and Assurance Faculty*.
- Thorne, M and Giesen, M 2002, *Statistics for the behavioral sciences*, McGraw-Hill, New York.
- Vanden Berghe, L.A.A., and Levrau, A., 2004. Evaluating Boards of Directors: What Constitutes a Good Corporate Board? *Corporate Governance: An International Review*.
- Vanstraelen, A., 2000. Impact of renewal long-term audit mandates on audit quality, *The European accounting Review*.
- Watkins, A. L., Hillison, W., & Morecroft, S. E., 2004. Audit Quality: A Synthesis of Theory and Empirical Evidence: *Journal of Accounting Literature* Gainesville.
- Watts, R., and J., Zimmerman., 2006. *Positive auditing theory*. Prentice-Hall Inc.
- Wooten, T. C., 2003. "Research about Audit Quality": *CPA Journal*.
- World Bank, 2007. Report on the observance of standards and codes (ROSC) Ethiopia.
- Xie, B., Davidson, W., and DaDalt, P., 2003. Earnings Management and Corporate Governance: The Roles of the Board and the Audit Committee. *Journal of Corporate Finance*.
- Zerni, M., 2009. 'Essays on Audit Quality'. Dissertation, University of Oulu, Finland.

Appendices

Appendix-1: Heteroscedasticity test: White test

F-statistic	1.037264	Prob. F(5,16)	0.4295
Obs*R-squared	5.385505	Prob. Chi-Square(5)	0.3707
Scaled explained SS	5.800730	Prob. Chi-Square(5)	0.3261

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 12/23/14 Time: 13:47

Included observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.014489	0.039460	0.367190	0.7183
CAPRT^2	0.030082	0.142703	0.210804	0.8357
AFT^2	8.58E-05	0.001491	0.057536	0.9548
AFIS^2	0.312384	0.258444	1.208710	0.2443
AFSZ^2	0.007969	0.020884	0.381583	0.7078
PROVNOS^2	-0.067608	0.074395	-0.908777	0.3770
R-squared	0.244796	Mean dependent var		0.020024
Adjusted R-squared	0.008794	S.D. dependent var		0.041361
S.E. of regression	0.041179	Akaike info criterion		-3.314768
Sum squared resid	0.027132	Schwarz criterion		-3.017211
Log likelihood	42.46245	Hannan-Quinn criter.		-3.244672
F-statistic	1.037264	Durbin-Watson stat		1.337237
Prob(F-statistic)	0.429512			

Appendix-2: Variance Inflation Factor

Variables	VIF
AFSZ	5.17
AFT	1.59
PROVNOS	2.77
AFIS	1.15
CAPRT	3.64

Appendix-3: Correlated Random Effects - Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.020962	5	0.3042

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
AFIS	1.697765	1.109190	0.471732	0.3915
AFSZ	-0.054718	-0.040814	0.003510	0.8144
AFT	0.012814	0.012796	0.000183	0.9990
PROVNOS	-0.707833	-0.815525	0.006989	0.1977
CAPRT	0.289206	0.578033	0.043804	0.1676

Cross-section random effects test equation:

Dependent Variable: AUQLT

Method: Panel Least Squares

Date: 12/23/14 Time: 13:32

Sample: 2009 2013

Periods included: 5

Cross-sections included: 12

Total panel (unbalanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.006471	0.265044	-0.024414	0.9815
AFIS	1.697765	0.798411	2.126429	0.0868
AFSZ	-0.054718	0.095687	-0.571851	0.5922
AFT	0.012814	0.025582	0.500901	0.6377
PROVNOS	-0.707833	0.233132	-3.036189	0.0289
CAPRT	0.289206	0.384120	0.752906	0.4854

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.973655	Mean dependent var	0.062015
Adjusted R-squared	0.889349	S.D. dependent var	0.288776
S.E. of regression	0.096059	Akaike info criterion	-1.783853
Sum squared resid	0.046137	Schwarz criterion	-0.940775
Log likelihood	36.62239	Hannan-Quinn criter.	-1.585250
F-statistic	11.54913	Durbin-Watson stat	3.953262
Prob(F-statistic)	0.006678		

Appendix- 4: Ratio Data

Year	Manufacturing share companies	DACC	AFIS	AFSZ	AFT	CAPRT	PROVNOS
2010	Horizon Addis Tyre Share Company	-0.033890	0.116000	1.000000		0.237000	0.536000
2011	Horizon Addis Tyre Share Company	0.410000	0.254000	0.000000	3.000000	0.498000	0.489000
2012	Horizon Addis Tyre Share Company	-0.062000	0.109000	1.000000		0.210000	0.625000
2013	Horizon Addis Tyre Share Company	-0.001000	0.102000	0.000000	2.000000	0.247000	0.542000
2010	Faffa Food Share Company	0.134354	0.202000	0.000000		0.328000	0.477000
2011	Faffa Food Share Company	-0.317683	0.070000	0.000000		0.182000	0.782000
2012	Faffa Food Share Company	-1.660000	0.021000	1.000000		0.092000	0.852000
2013	Faffa Food Share Company	0.940000	0.321000	1.000000	4.000000	0.459000	0.245000
2010	East African Bottling Share company	-0.386802	0.106000	0.000000	2.000000	0.185000	0.772000
2011	East African Bottling Share company	0.101849	0.124000	0.000000		0.254000	0.379000
2012	East African Bottling Share company	-0.268521	0.179000	1.000000		0.192000	0.642000
2013	East African Bottling Share company	0.085960	0.165000	1.000000	3.000000	0.250000	0.410000
2010	Meta Abo Brewery Share Company	-0.161095	0.192000	0.000000		0.246000	0.556000
2011	Meta Abo Brewery Share Company	0.106543	0.211000	1.000000		0.259000	0.452000
2012	Meta Abo Brewery Share Company	-0.258146	0.159000	1.000000	4.000000	0.222000	0.712000
2013	Meta Abo Brewery Share Company	0.099512	0.177000	0.000000	1.000000	0.277000	0.415000
2010	East Cement Share Company	0.099097	0.306000	1.000000		0.419000	0.483000
2011	East Cement Share Company	-0.220319	0.295000	0.000000		0.231000	0.625000
2012	East Cement Share Company	0.210000	0.332000	0.000000		0.476000	0.292000
2013	East Cement Share Company	0.550000	0.356000	1.000000	5.000000	0.491000	0.262000
2010	Tikur Abay Shoe Share Company	0.030000	0.128000	0.000000		0.341000	0.492000
2011	Tikur Abay Shoe Share Company	0.128313	0.136000	0.000000		0.377000	0.284000
2012	Tikur Abay Shoe Share Company	0.081126	0.141000	1.000000	4.000000	0.392000	0.200100
2013	Tikur Abay Shoe Share Company	-0.038874	0.152000	0.000000	1.000000	0.228000	0.580000
2010	Ambo Mineral Water share Company	0.180000	0.277000	1.000000		0.378000	0.220000
2011	Ambo Mineral Water share Company	-0.240000	0.313000	1.000000	3.000000	0.212000	0.622000
2012	Ambo Mineral Water share Company	0.010000	0.345000	0.000000		0.250000	0.501000
2013	Ambo Mineral Water share Company	0.001345	0.309000	1.000000	2.000000	0.468000	0.521000
2010	Ethiopian Pharmaceuticals Share company	0.034851	0.000000	1.000000		0.255000	0.487000
2011	Ethiopian Pharmaceuticals Share company	0.042401	0.000000	0.000000		0.241000	0.452000
2012	Ethiopian Pharmaceuticals Share company	0.198013	0.000000	1.000000	4.000000	0.484000	0.321000
2013	Ethiopian Pharmaceuticals Share company	0.022243	0.000000	1.000000	1.000000	0.484000	0.495000
2010	Bedele Brewery Share Company	-0.233792	0.148000	1.000000		0.235000	0.621000
2011	Bedele Brewery Share Company	0.071611	0.162000	0.000000		0.356000	0.455000

2012	Bedele Brewery Share Company	-0.001824	0.173000	0.000000	4.000000	0.362000	0.511000
2013	Bedele Brewery Share Company	0.190363	0.297000	0.000000	1.000000	0.371000	0.325000
2010	Kality Food Share Company	-0.297500	0.223000	1.000000	2.000000	0.180000	0.782000
2011	Kality Food Share Company	0.023333	0.254000	0.000000		0.422000	0.498000
2012	Kality Food Share Company	0.853333	0.282000	1.000000		0.441000	0.190000
2013	Kality Food Share Company	0.033333	0.255000	1.000000	3.000000	0.263000	0.477000
2010	Moha Soft Drinks Share Company	0.289793	0.136000	0.000000		0.403000	0.391000
2011	Moha Soft Drinks Share Company	0.500945	0.117000	0.000000		0.428000	0.280000
2012	Moha Soft Drinks Share Company	-0.101065	0.102000	1.000000	4.000000	0.256000	0.621000
2013	Moha Soft Drinks Share Company	0.010000	0.127000	0.000000	1.000000	0.485000	0.490000
2010	Addis Ababa Bottle Glass Share Company	0.060777	0.213000	1.000000		0.221000	0.433000
2011	Addis Ababa Bottle Glass Share Company	0.174918	0.248000	0.000000		0.282000	0.364000
2012	Addis Ababa Bottle Glass Share Company	0.079813	0.196000	1.000000	4.000000	0.313000	0.450000
2013	Addis Ababa Bottle Glass Share Company	-0.012164	0.225000	1.000000	1.000000	0.254000	0.592000

Appendix-5: Personal inquiry

Addis Ababa University

College of Business and Economics

Department of Accounting

Personal inquiry guiding questions for audit directors (officials) of audit firms

1. **Joint provision of Audit and Non-Audit service:** How significant is the income from Non-Audit fees from the total income of your firm in the years from 2009 to 2013?
2. **The percentage share of the manufacturing sector:** From the total number of audit clients from 2009 to 2013, what is the share of the manufacturing sector in your audit firm?
3. **Certified Audit Professionals:** What percentage do ACCA certified audit professionals constitute from the total employed auditors in your audit firm from 2009 to 2013?

Thank you!