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Dynamics of Audit Quality
Behavioural Approach and Governance Framework
UK Evidence

Nehme, Rabih H., 2013

Abstract

The research objective is to study and analyse different factors potentially involved in influencing the measuring of auditor behaviour and audit quality that would lead to auditors' failure. It covers areas related to auditing, accounting, and corporate governance. The first empirical study assesses auditors' behaviour against audit firm factors (time deadline, time budget and performance evaluation). It also explains how behaviour may differ among experienced auditors and audit trainees. The results show that the majority of auditors commit dysfunctional behaviour but they try to avoid it in technical audit areas. The majority of auditors knowingly commit dysfunctional behaviour for the sake of better performance. It is noted that some of dysfunctional behaviour acts are due to a misperception of the concept of dysfunctional behaviour during an audit assignment. Auditors assume they are contributing to the benefit of an audit assignment while in fact they are committing dysfunctional behaviour.

The second empirical model is constructed to assess the theoretical and statistical relationship between audit quality and clients' corporate governance characteristics. As for corporate governance mechanisms, the results show that audit quality has a significant positive relationship with board of directors' size and independence and a negative relationship with role duality. It can be concluded that within the British context, a bigger board of directors with diverse backgrounds leads to better audit quality. Also, more independent directors lead to better audit quality.

For audit committee variables and their impact on audit quality, the results show that there is no significant statistical relationship between audit committee independence and size and audit quality; but there is a positive significant relationship between audit committee meetings and audit quality. This result gives an indicator that the more active audit committees in British companies, the better audit quality is achieved.

Dynamics of Audit Quality
Behavioural Approach and Governance Framework
UK Evidence

by

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A thesis submitted for the degree of Doctor of Philosophy

University of Durham
Durham University Business School
United Kingdom

2013

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List of Abbreviations

IASB	International Accounting Standards Board
GAAP	Generally Accepted Accounting Principles
IFRS	International Financial Reporting Standards
FTSE	Financial Times Stock Exchange
SAS	Statements of Auditing Standards
ISA	International Standards on Auditing
SEC	Securities and Exchange Commission
FRC	Financial Reporting Council
APB	Accounting principles Board
MAS	Management Advisory Services
URT	Under-Reporting of Time
QTB	Quality Threatening Behaviour
DQ	Discussion Questions
RAQ	Reduction Audit Quality
TBP	Time Deadline Pressure
TDP	Time Deadline Pressure
UCT	Under-recording Chargeable Time
DJI	Dow Jones Industrial
ICB	Industry Classification Benchmark
PSO	Premature Sign-Off
PAT	Positive Accounting Theory
VIF	Variance Inflation Factor
AAER	Accounting and Auditing Enforcement Releases

Declaration

I declare that this thesis is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person, except where due acknowledgement has been made in the text. I confirm that no part of the material presented in this thesis has previously been submitted by me or any other person for a degree in this or any other institution.

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Chapter One

Introduction

Chapter One - Introduction

1.1 Background and Motivation

The auditing profession and the behaviour of auditors have become controversial issues in recent years. Corporations have a tendency to expand more and to gain competitive advantage continuously (Porter, 1998). This competitive advantage helps companies to gain better market share that will lead to better financial and non-financial performance. One of the key factors to become a reputable trustworthy corporation in a selected market(s) is to have credible financial statements and effective reporting processes. It is not enough to hire a competent top management team for companies to gain the trust of their customers. One major factor to achieve an effective reporting process is to hire reputable external auditors who are able to produce a good quality audit. The auditing profession plays a role in helping corporations to issue credible financial statements. Also, issuing audited financial statements is a requirement for some corporations, especially listed companies, in different stock markets.

External auditors are perceived to be competent individuals who play an independent and objective role when auditing companies' financial statements. The objective of this research is to analyse audit quality dynamics. It commences by analysing factors pushing external auditors to commit dysfunctional behaviour (Pre-mature sign-off and under reporting of chargeable hours). Then, analyses governance mechanisms that affect audit quality. The dependent variable of the first model will have a direct conceptual impact on audit fees which is used as a proxy of audit quality in the second model. Auditing is more about understanding the business environment of companies, assessing different risks that may vary between control risk, inherent risk, business risk, information technology risk and other kinds of risks, designing and testing internal

controls and substantives testing followed by test of details, and in the final stage audited financial statements are issued (Elder et al., 2010).

Accordingly, the role of auditors and the quality of audit they are producing have increasingly risen in recent years, especially after the recent accounting scandals. The audit quality has been looked at as a requirement by companies to assign/re-assign auditors. The general perception is that the Big Four audit companies (Deloitte, Ernst & Young, KPMG and PriceWaterhouseCoopers) can produce a better quality audit. Their reputation is gained from investing in their “reputation capital” (Beatty, 1989). Big Four audit firms are perceived to provide better audit quality than non-Big Four audit firms due to their competence (Khurana and Roman, 2004). Competence is achieved from huge investments in training related to international accounting standards, codes of ethics, international standards on auditing, and different investments in human capital.

What is meant by audit quality is that audit has been performed by competent, experienced and highly qualified auditors. In other words, companies that do not hire Big Four audit firms still possess credible financial statements. The ownership structure of companies, management philosophy, control environment and corporations' financial performance are all considered factors for companies to change lower quality auditors to higher quality auditors and vice versa.

One of the agency theory fundamentals is that shareholders assign top management to serve for their benefit and to meet their goals. When management does not meet shareholders' goals, a conflict takes place. Different levels of corporate governance mechanisms are established to manage this conflict and to serve corporations' benefit. Corporate governance mechanisms can be internal mechanisms such as board of

directors, audit committee, remuneration committee, and nomination committee and external mechanisms through hiring external auditors.

The quality audit concept is directly related to the individuals' behaviour who are performing the audit assignments: the auditors. As mentioned before, auditors are perceived to be competent professional individuals. Previous literature has related audit quality to change of auditors, whether an auditor is a Big Four audit firm or not, and if a going concern paragraph is disclosed in the audit report after the audit opinion (Lin and Liu, 2009; Uang et al., 2006), audit firm size (Hussainey, 2009), non-audit fees (Zaman et. al, 2011; Basiruddin, 2011), and specialised auditors (Basiruddin, 2011). The concept of audit quality is directly related to competent auditors. This competency and professional perception plays a significant role in increasing the quality of audit. Therefore, the behaviour of auditors is critical as it is not enough to assign/re-assign auditors but also auditors' behaviour should be professional and sceptical enough to maintain a good audit quality. What is meant by "professional" is that individuals are able to perform a task others cannot perform with the same level of output (Elder et al., 2010).

1.1.1 UK context

It is expected in weak corporate governance environments to identify many factors that would lead to a poor audit quality. The UK context is perceived to be one of the leading developed markets worldwide. Three out of four firms of the Big-Four audit firm has started their businesses originally in the UK (PwC, 1874; KPMG, 1911; Deloitte, 1843). The UK is said to be one of the pioneers in establishing and implementing corporate governance codes as it has been the first country to introduce a corporate governance code "Cadbury report" in 1992 compared with other developed countries (Statement of

Corporate Governance "USA", 1997; Circulo de Empresarios "Spain", 1996; Vienot I report "France", 1995; Corporate Governance, Share Option and Other Incentive Schemes, 1999 "Ireland").

Within the American context, it is concluded that senior and staff auditors' stress perception is directly affected by the increase in time pressure and time budget pressures (Margheim et al., 2005). There is a lower audit quality reduction by senior auditors within the French context (Herrbach, 2001). Senior auditors' behaviour, motivated by performance evaluations, is threatening audit quality within the Irish context (Otley and Pierce, 1996). Companies characterised by indicators of weak corporate governance, role duality and block holders, tend to assign lower quality auditors within the Chinese context (Lin and Liu, 2009).

The availability of data collection and the access to the UK Big-Four audit firms in the first model complements the second model which is related to governance mechanisms for listed companies at the FTSE 350. Accordingly, behavioural and governance approaches are implemented to analyse the dynamics of audit quality. Results can be generalised over developed countries as auditors employed at the Big Four have almost the same policies and procedures in other developed countries. Also, listed companies in the Financial Times Stock Exchange (FTSE) have requirements that are closely similar to other stock markets in developed countries.

Mainly, the study is intended to answer the following research questions:

- Do audit firms' policies and procedures play a significant role in auditors' behaviour?

- Do audit trainees and experienced auditors have different perceptions of dysfunctional behaviour?
- Do corporate governance mechanisms affect Audit Quality?

The first two research questions relate to the objective and hypotheses set for the first model. They highlight the main factors that contribute to the dysfunctional behaviour of auditors. Also it differentiates between the behaviour of experienced and non-experienced auditors. The results help to mitigate behavioural habits exercised by auditors that are perceived to be accepted but in fact they are one kind of another of dysfunctional behaviour.

The third research question complements with the other research questions for the sake of understanding audit quality dynamics. Unlike the first two research questions that deal with audit firms' factors, the last research question analyses clients' (companies) governance mechanisms and characteristics that may affect audit quality.

1.2 Research Objective

The role of auditors has been a controversial issue especially after the recent accounting scandals that took place (WorldCom, Enron, Parmalat SpA, Waste Management Inc, Xerox Corporation, and Société Générale). In most of the accounting scandals and lawsuits, a question is being frequently asked “Where were the auditors?” Many lawsuits have been settled by external auditors worldwide. The case of Nuevo Mundo bank, which has been liquidated in 2004, is one example of a law suit against PwC for negligence behaviour. Ernst and Young settled claims in Canada to Sinor-Forest, a Chinese company, for fraud activities. In addition to one of the most popular examples which is the collapse of Arthur Andersen after the famous Enron case (Aubin, 2013).

There is an increasing risk and international threat against audit firms worldwide. Claims and lawsuits are not limited to corporations only. Regulators and liquidators are bringing lawsuits on behalf of investors leading to big settlements (Aubin, 2013).

Whom to be blamed as a result of the many scandals that took place? External auditors might be blamed. Shall we blame auditors as individuals or as audit firms? Corporations' management could be blamed; weak corporate governance mechanisms and weak regulatory framework could be another reason that contributes to bankruptcy and liquidation of big organisations.

The objective of this research is to study audit firms' based factors and companies' based factors. In other words, before blaming auditors, the study is identifying factors that may affect auditors' behaviour which may push them to behave dysfunctionally. This possible dysfunctional behaviour may or may not lead to a scandal, bankruptcy or nothing. Also before blaming companies' management, the study is assessing different governance mechanisms that are directly related to the scope of audit work. Assessing auditors' behaviour and analysing audit quality determinants from different perspectives will help to have a macro view of what are the potential drivers for audit quality. What mechanisms play a positive/negative role in pulling audit quality upwards or pushing it downwards. What is meant in audit quality in this research is explicitly related to the mandatory financial audit and not to any other voluntary non-audit or advisory service(s).

Through analysing different audit quality drivers, the research questions are answered by identifying auditors' perception about dysfunctional behaviour during an audit assignment which subsequently will harm audit quality. Thus, it will be clearer whom to blame, auditors as individuals or audit firms' common practices and related policies

and procedures. Also, governance mechanisms are highlighted to identify those that are pushing audit quality downwards.

1.3 Research Contribution

Different studies have been conducted to relate between the accountancy/auditing profession and corporate governance (Imhoff-Jr, 2003). Researchers, decision makers, regulators, and auditors are continually trying to minimise the gap between auditors and different clients and stakeholders, mainly audit expectancy gap (Iskander, 2008). This research is contributing not only to previous and academic literature but also presents possible solutions related to the accountancy challenges.

The majority of studies focus on the behaviour of audit trainees and senior auditors only. Also, the majority of auditors' behaviour studies have focused on timing issues (time budget, time deadline) affecting auditors' behaviour. This research has combined timing factors with performance assessment factors (time budget, time deadline, performance evaluation). Additionally, levels of auditors are tested in the sampled population (audit trainees, senior auditors, audit managers, and partners). One additional contribution is that a difference between behaviours among two groups of auditors is also included in this research. Audit trainees and experienced auditors are categorised, and difference between their behaviour is analysed.

By analysing the tested sample, the results highlight challenges faced by auditors and the trend of audit firms regarding hiring and promotions. It can be noted that audit firms currently care less for graduate degrees and prefer more professional qualifications. The research also highlights challenges faced by audit firms to retain experienced auditors.

The research has indicated, analysed and linked professional qualifications to auditors' tenure as part of the descriptive statistics section. It is revealed that audit managers are mostly the auditors who spend the least time with their current employers. Auditors employed at the Big Four audit firms are selected to participate in this study. Such auditors are expected to contribute to the study by their constructive feedback and objective replies.

The other part of the research investigates the statistical relationship between audit quality and corporate governance characteristics. Many studies have been conducted to understand audit fees in relation with different governance mechanisms and financial performance measures. Zaman et al., (2011) argue that the wider the audit scope, the better audit quality. The researchers analysed non-audit fees to support the argument of the study that was conducted covering a period from 2001 to 2004. O'sullivan (2000) concludes that role duality and block holders have no impact on audit fees. Audit committee characteristics are excluded from this study which was conducted on a sample between 1992-1994. The first corporate governance code was established by that period (Cadbury Report, 1992) where compliance with governance codes was at its early stages.

Better audit quality reduces manipulated earnings (Basiruddin, 2011). Non-audit fees and specialised auditors are used as measures for audit quality in addition to audit fees. Previous literature show different results. Non-audit fee is a proxy for auditors' independence (Knap, 1985) and specialised auditors could be a biased proxy for audit quality (Cahan et al, 2011). Hussianey (2009) states that investors perceive higher audit quality if the financial statements are audited by Big-Four audit firms. This argument cannot be applicable in the current research. The sample consists of listed companies at

the FTSE 350 where 97 per cent of these companies are audited by Big-Four. Big firms were involved in most of the accounting scandals that took place which raise doubt about using audit firms' size as a proxy for audit quality (Dang, 2004).

It is noted that most of the previous literature focused on audit fees inclusive voluntary and mandatory audit and non-audit services. When considering audit firms' size, the majority of researchers did not differentiate between audit market share from mandatory audit services and market share from voluntary audit services that can include many other services besides financial audit (Advisory, consultancy, transaction services, and tax services). Other studies have focused solely on audit fees where audit quality is assessed implicitly rather than explicitly.

The findings and conclusions presented in this research are supported by sensitivity tests that give more reliability and robustness for the research results. The Mann-Whitney test, which is equivalent to the Wilcoxon rank sum test, is used to analyse the significant differences between the two stratified groups; audit trainees and experienced auditors. The Mann-Whitney test is considered the most appropriate test to give higher efficacy in non-parametric data (John and Priebe, 2006). For sensitivity analysis, the t-test is also used. The t-test is usually used to meet the assumption of normality. This analysis highlights on certain factors that are causing dysfunctional behaviour for some auditors while it is not the case with another auditors.

The random effects regression test (GLS) is used as the primary test to analyse the relationship between audit quality and companies' characteristics. The Hausman test has been used to support the use of the GLS test. In addition to the previous studies that state collinearity threshold to be acceptable up to 80% (Gujarati, 1995), the Variance Inflation Factor (VIF) has been included in the correlation matrix indicating no major

problems in multicollinearity among variables. Additional sensitivity tests have been conducted to give more robustness to results; 2SLS regression test and fixed effects regression tests. Also, another GLS test has been conducted using different proxy for a control variable.

It is the first study, to my knowledge, that analyses audit quality from two different perspectives: Behavioural and governance approach. A conceptual framework is explained through auditors' behaviour assessment and the potential effect of this behaviour on audit quality. In addition to an econometric model to analyse audit quality against selected corporate governance mechanisms that are closely to the audit scope. Combining the two models, the research introduces recommendations to corporations and audit firms to mitigate dysfunctional behaviour and a lower audit quality. The research can be used as a tool for audit firms' to identify certain weaknesses in their common practices. The recommendations might help audit firms to mitigate any possible failure and claims' settlement in the future. Listed companies in the UK may identify governance mechanisms that are negatively affecting audit quality.

1.4 Audit Quality: Auditors and Corporate Governance Drivers

The role of external auditors has always been an issue of debate regarding the nature, responsibility, and scope of tasks performed by auditors. Abdel-Khalik (2002) focused on the role of auditors as being an agent to the management. Ussahawanitchakit (2012) states that audited financial statements are prepared by external auditors for the sake of helping different stakeholders in investment decisions.

Different factors affect audit quality such as input, output and interaction among key stakeholders' factors. The input factors relate mainly team expertise, their ethical behaviour, and the audit process itself. The output factors relates to the legislative

requirement and the impact of stakeholders. The interaction among key stakeholders can affect the level of audit quality. The communication with those charged with governance at the planning phase to assess different risks and critical cycles can be an example of such impact on audit quality. Stakeholders perceive audit quality from different perspectives (IAASB, 2103). Users of financial statements perceive audit quality as a tool to challenge management. It is said that the more resources are allocated, the better audit quality. On the hand, managements' perception of audit quality might be related mainly to coordinate with auditors for the sake for finishing audit assignments as quickly as possible. Finishing audit assignments in reasonable time mitigate any disruption in companies' operations (IAASB, 2103).

Francis (2004) mentions that different approaches have been used to study the concept of audit quality. Percentage of non-audit fees, auditors' incentives from legal perspective, and hiring alumni auditors; are all considered potential proxies that have been researched to measure audit quality.

Non-audit fee is a signalling proxy for auditor independence rather than for audit quality. Delivering many services other than audit assignments by audit firms is also considered another factor affecting auditor behaviour (Knapp, 1985). Auditors' independence, in appearance, is impaired as a result of non-audit services provided by auditors (Quick et al., 2013). Accordingly investors and readers of financial statements may doubt auditors' opinions. The argument of this study supports the use of audit fees as a proxy for audit quality and gives additional justification for not using non-audit fees.

Audit fees has been used as a signalling proxy for perceived audit quality rather than actual audit quality (Holm and Birkholm, 2007; Krishnan and Visavanathan, 2009).

Actual chargeable hours for an audit assignment can be used as a proxy to measure actual audit quality. Dang (2004) concludes that after many accounting scandals which took place, there is a wide doubt about the use of audit firm size as a proxy to measure audit quality. Accordingly audit fee, rather than audit firm size, is used as a proxy for audit quality.

Auditing is perceived to be a tool of increasing the credibility of financial statements (Abott and Parker, 2000). These financial statements are used as a monitoring tool by shareholders against management performance and stewardship. Abott and Parker (2000) indicate that the selection process of external auditors is considered a signalling of a company's performance. Holm and Birkholm (2007) and Abott and Parker (2000) arguments support the selection of audit fees, as a proxy for audit quality, in this research.

As companies have more complex and larger transactions, the probability of auditor failure increases (Pratt and Stice, 1994). Pratt and Stice (1994) argue that to maintain reasonable audit quality in such companies, auditors incur more hours to obtain enough and acceptable audit evidence. Additional audit hours lead to an increase in audit fees to maintain audit quality. It is implied that auditors assess risk at a higher level for companies cited by the Accounting and Auditing Enforcement Releases (AAER). To maintain a good quality audit, auditors charge higher audit fees to cover all potential risks (Barua and Smith, 2013).

Previous studies and researchers have used different proxies to measure audit quality. Non audit fees, auditors' specialisation and auditors' market share are examples of audit quality proxies (Hussainey, 2009; Roheida, 2011). Non-audit fee is a signalling proxy for auditor independence rather than for audit quality. Delivering many services other

than audit assignments by audit firms is also considered another factor affecting auditor behaviour (Knapp, 1985). Knapp states that financial statement users will perceive that a company's management will obtain their preferred resolution when there is a conflict with external auditors. Wines (1994) states that auditors' independence is "in doubt" when remuneration from non-audit fees exist. Companies with a higher proportion of non-audit fees receive more unqualified audit opinion in comparison with companies incurring lower non-audit fees and receiving different types of qualified audit opinion. Quick et al. (2013) state that non-audit fees impair auditors' 'in-appearance' independence.

Audit firms auditing same line of industry clients and obtaining large market share; this might be an indicator of lower audit quality. There is evidence that specialised auditors assign junior staff and spend minimal time on reviewing the control framework that could lead to a lower quality audit (Cahan et al., 2011). Kwon et al. (2007) indicate that auditor specialisation can have an effective role in improving accounting quality in a weak legislative environment. Auditors' specialisation is a substitute of a weak corporate governance mechanism in a weak legislative environment rather than strong legal environment.

The research scope is mainly about the compulsory provisions of audit and the mandatory audit assignments rather than other services performed by audit firms. Audit fee is used as an audit quality proxy to maintain the coherence between the two empirical studies. The first study comprises a survey about auditors' dysfunctional behaviour. The dysfunctional behaviour is measured by pre-mature sign-off and under reporting of chargeable time related to audit assignments. The detailed questionnaire in the appendix highlights the different areas auditors are questioned about which are

related to tasks and scenarios of audit assignments rather than voluntary assignments and services. The potential dysfunctional behaviour, measured by under reporting of chargeable time, will lead to tight budgets and lower audit fees leading to a lower audit quality. Audit quality is measured by total audit fees (Holm and Birkholm, 2007; Krishnan and Visavanathan, 2009).

1.5 Summary of Findings

The dynamics of audit quality are analysed from auditors' and companies' perspectives. The results help in enhancing audit quality by looking at different factors affecting it. The first empirical study assesses auditors' behaviour against audit firm factors (time deadline, time budget and performance evaluation). It also explains how behaviour may differ among experienced auditors and audit trainees. The results show that the majority of auditors commit dysfunctional behaviour but they try to avoid it in technical audit areas. The majority of auditors knowingly commit dysfunctional behaviour for the sake of better performance. It is noted that some of dysfunctional behaviour acts are due to a misperception of the concept of dysfunctional behaviour during an audit assignment. Auditors assume they are contributing to the benefit of an audit assignment while in fact they are committing dysfunctional behaviour.

It is evidenced that auditors facing the three different scenarios tend to work heavily in their personal time. One of the most common audit problems, “box-ticking exercise”, is not proven to be exercised heavily as per the survey results. It can be due to the increase in awareness among auditors to mitigate audit failures and to a better review by experienced auditors over the work of audit team members.

The coordination between different lines of auditors in preparing budgets and allocating tasks showed a negative relationship with dysfunctional behaviour and to minimise such

behaviour. It is proven that communication among auditors plays an important role in minimising dysfunctional behaviour. The communication with those charged of governance proved to have no significant impact on dysfunctional behaviour. It is implied that external auditors still prefer to do the job themselves with no heavy reliance on other parties, though it is allowed by the standards.

A comparison between audit trainees and experienced auditors took place to highlight any difference in perception. It is noted that when a question is targeting a specific group of auditors, the other group reply with less conservatism. Experienced auditors have a tendency to blame audit trainees more for dysfunctional behaviour and vice versa for audit trainees about experienced auditors. Also, some differences were due to the nature and responsibilities held by every type of auditor.

Analysing board of directors' attributes against audit quality, most of the findings support the set hypotheses. It is noted that the percentage of non-executive directors and board of directors' size have a positive significant relationship with audit quality. The results align with the argument that the existence of non-executive directors help to minimise agency cost and to reduce the gap with external auditors (Uang et al., 2006). The bigger boards of directors, the more diversified technical and educational backgrounds members may possess (Zahra and Pearce, 1989) that will help in improving audit quality. Role duality has a negative significant relationship with audit quality. The gap between external auditors is reduced when there is no role duality scenario (Uang et al., 2006). The ease of decisions, as a result of role duality, may benefit managements' (agents) on the expense of shareholders' one (Donaldson and Davis, 1991).

Audit committees' size and independence show to have no significant relationship with audit quality. This might be due to "collegiality" principle mentioned in Smiths report (2003). It is referred to audit committees as subcommittees of board of directors where they are collectively responsible for the financial reporting quality. The result is consistent with other studies which show that audit committees' size and independence have no impact on auditors' reporting and earning management (Carcello and Neal, 2009; Piot and Janin, 2007). Active audit committees, measured by the number of meetings, contribute to a better audit quality. Financial reporting problems are reduced by frequent audit committees meetings (Farber, 2005). The result of financial expertise within audit committees show to have inverse relationship with audit quality. Financial experts are expected to contribute to the effectiveness of monitoring (Kalbers and Fogarty, 1993). Agency costs are expected to increase in the absence of financial experts that will lead to increasing demand for auditors who are perceived to be an important factor in the classic agency problem (Habib and Bhuiyan, 2011). There is an inverse relationship between audit quality and block holders. It is evidenced that block holders prefer lower quality auditors (Lin and Liu, 2009).

1.6 Thesis Structure

The thesis is comprised of seven main chapters related to the core of this research, audit quality and auditors' behaviour. The first chapter gives a brief introduction to the research topic and the main contribution this thesis is adding to the knowledge. Defined research questions are stated in addition to the research motivation. Chapter two evaluates prior studies conducted to determine auditors' behaviour and audit quality. Some studies initiated empirical studies to measure audit quality, others conducted an experiment lab and analysed auditors' behaviour. Some studies used the

questionnaire method to analyse auditors' responses and consequently their behaviour, while other studies issued interpretive articles via data collection to critically analyse previous studies. Chapter two is divided mainly into four main sections: the first section describes the history of corporate governance and different mechanisms and principles plus an overview of the audit profession and the Big Four audit firms in the UK; the second section covers external auditors' tasks against corporate governance principles and specifically those that are closely related to auditors: Board of directors, Audit committee, and ownership structure. The third section describes auditors' behaviour against Big Four audit firm factors and their role in determining specific auditor behaviour, the fourth section covers the relationship between audit quality and corporate governance mechanisms.

Chapter three describes and explains the theoretical foundation of this research related to the impact of audit firm embedded factors on auditors' behaviour and how such possible dysfunctional behaviour may affect audit quality. It also focuses on audit quality and defined corporate governance mechanisms. Those mechanisms are considered to be related to the nature of external audit scope.

The theory concept 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. A theory will not guide us on what to do, when and where to do things or to act, but it will help us to eliminate countless options from consideration when we are in a situation to choose or to decide between different alternatives (Chambers, 1996).

Different studies (Chahine and Filatotchev, 2011; Dao et al., 2008) have focused on the determinants of audit fees in relation to corporate governance. It is said that external

auditors are assigned by Board of Directors (BoD) to solve the information asymmetry problem between shareholders (principal) and management (agent). Limited studies (Holm and Birkholm, 2007; Krishnan and Visavanathan, 2009) have used audit fees, among other proxies, as a signalling tool to measure audit quality. Audit quality plays a significant role in the decision-making process. This decision could be made by investors, creditors, bankers and many other stakeholders. The level of audit quality is also found to play a significant role in reducing the agency conflict from one side and to improve clients' and audit firms' credibility and reputation from another side by issuing a good quality audited financial statements. It is worth mentioning here that not all audited financial statements have the same quality audit. When it is referred to quality in auditing, it is not necessarily that the audit is improper or incorrect when financial statements are audited with less quality. It is argued in this research that corporate governance mechanisms, mainly boards of directors, audit committees, and ownership concentration play a significant role in the quality of audited financial statements that are prepared by management. Preparation of financial statements is the sole responsibility of management where the role of external auditors is to give their opinion on the financial statements. Auditors perform audit procedures according to International Standards of Auditing (ISA), Generally Accepted Auditing Standards (GAAS) or any other defined auditing principles. Financial statements are normally prepared in accordance to International Financial Reporting Standards (IFRS) or Generally Accepted Accounting Principles (GAAP).

Chapter four is about the research methodological and philosophical framework. The main objective of this chapter is to highlight the methodology used. Many types of methodologies are discussed but the selected methodology is justified and supported

based on the two empirical models' analysis and findings in addition to the theoretical framework of this research.

The basis of the current research is to analyse auditors' behaviour and the determinants of audit quality. This research is conducted on the UK market. The first empirical model covers auditors' behaviour in the UK. A survey has been conducted in collaboration with the Big Four audit firms in the UK: Deloitte, EY, KPMG, and PwC. The second model sampled population is made up of non-financial listed companies in the Financial Times Stock Exchange 350 (FTSE 350) for a longitudinal time frame between 2007 and 2010.

Ontological and epistemological approaches are explained and justified for the selected approach to align with the theoretical framework used and to link between different components. The methodology plays a linkage role between the two empirical studies and harmonises the relationship between them.

Time budget, time deadline and performance evaluation factors are selected to be independent variables against the dependent variable: auditors' behaviour. The research is trying to link between accountancy firms' embedded factors that may play a role in committing dysfunctional behaviour and consequently may harm audit quality. Moreover, the first study also highlights perception differences between audit trainees and experienced auditors. A questionnaire technique is used for this model to assess auditors' behaviour.

The second empirical study complements with the first model by trying to answer the cause of audit quality variations. Selected corporate governance variables are defined and used as determinants and signalling indicators of audit quality. The concept of audit quality has been a controversial issue in recent years. As a result of many scandals, the

major question has always been asked “where were the auditors?” Relevant data from 908 annual reports was manually collected. The data includes financial and non-financial information of the 908 non-financial listed companies in the FTSE 350. To control for this empirical model, companies' size, profitability, leverage, and companies' line of service are included as control variables.

Chapter five represents the first empirical model of this research. It measures and assesses auditors' dysfunctional behaviour. The main objective of this chapter is to highlight factors leading to dysfunctional behaviour. The role of external auditors exists as a result of management-shareholders unstable relationship leading to information asymmetry (DeAngelo, 1981). Due to this critical role of external auditors, previous studies (Margheim et al., 2005; Ponemon, 1992; and Kelley and Margheim, 2002) have been conducted to analyse auditors' behaviour and what factors may push auditors to behave in a dysfunctional manner. This chapter analyses the behaviour of external auditors employed at the Big Four accounting firms in the UK. Internal audit factors are summarised by time budget, time deadline and performance evaluation. Previous literature has indicated that such factors have a major impact on pushing auditors to behave dysfunctionally. What distinguish this empirical study from other studies is that it is limited to the behaviour of top-niche auditors who are perceived to be the most credible auditors in the profession. Also, this model analyses the behaviour of all level of auditors and it is not limited to the behaviour of audit trainees or senior auditors.

The survey conducted is comprised of 48 questions used to analyse auditors' perceptions about dysfunctional behaviour. The dependent variable, dysfunctional behaviour (DB) is measured using two proxies as signals of dysfunctional behaviour: premature sign-off and under-reporting of chargeable time. The independent variables used in this model

are time budget pressure, time deadline pressure, and performance evaluation. An audit related technical questionnaire is prepared comprises three main sections related to the three defined independent variables (time budget, time deadline, performance evaluation).

Responses were well received from the four audit firms that help in generalisation. Mean and median results are used to analyse the results at the first stage. In the second stage, the sample is classified into two main groups: audit trainees and experienced auditors. The Mann-Whitney test, which is equivalent to the Wilcoxon rank sum test is used to analyse the significant differences between the two groups. The Mann-Whitney test is considered the most appropriate test to give higher efficacy in non-parametric data (John and Priebe, 2006). In addition to the Mann-Whitney test, the t-test is used for sensitivity analysis purposes. The t-test is usually used to meet the assumption of normality.

Chapter six analyses the relationship between audit quality and corporate governance mechanisms. In specific, board of directors' size, board of directors' independence, role duality, audit committee size, audit committee effectiveness, audit committee independence, audit committee financial experts and ownership structure are selected to be the independent variables of the first model in addition to companies' size, profitability, leverage and line of industry as control variables to control for the sample data. Financial and non-financial data for 908 listed companies in the FTSE 350 were manually collected from one source: companies' annual reports. Due to the non-parametric nature of data collected as per the stated results of kurtosis and skewness, Ordinary Least Square (OLS) time series panel data with fixed effect regression was

used. Also, random effect regression (GLS) testing and pooled OLS was used for sensitivity purposes and to achieve more robust results.

Chapter seven commences by stating the main objectives of the research by highlighting the two empirical studies conducted. Then, research technique tools are explained to justify and support the research methods used in this research. A summary of findings and results is presented in this chapter in addition to research implications. The objective of this section “research implication” is to state the impact of the research findings on the market. It is also a tool for decision makers, top management, audit firms' partners and regulators and many other potential users to use this research either to find solutions for possible problems they are facing or to expand their knowledge in the accountancy profession. Finally a limitation and future research section is included to highlight to future researchers the limitations of this study for the sake of developing future studies with similar interests and themes.

Chapter Two
Literature Review

Chapter Two - Literature Review

2.1 Introduction

During their involvement in different assignments, auditors practice high levels of professional scepticism and personal professional judgments. Studies (Coram et al., 2004; McDaniel, 1990; Margheim et al., 2005; Lin and Liu, 2009) have been conducted and many researchers have excelled in determining factors affecting auditors' behaviour and audit quality and subsequently the result of such behaviour and quality on the audit/accountancy profession and audited clients.

The current chapter critically evaluates prior studies conducted to determine auditors' behaviour and audit quality. Some studies initiated empirical studies to measure audit quality, others conducted an experiment lab and analysed auditors' behaviour; some studies used the questionnaire method to analyse auditors' responses and consequently their behaviour, while other studies issued interpretive articles via data collection to analyse previous studies critically.

This chapter is divided mainly into four main sections: the first section covers an overview of the audit profession and the Big Four audit firms in the UK plus a description of corporate governance framework; the second section covers auditors' behaviour against Big Four audit firm factors and their role in determining specific auditor behaviour; the third section covers the relationship between external auditors' tasks and responsibilities against corporate governance principles and specifically those that are closely related to auditors, board of directors and audit committee, and ownership structure; the fourth section describes the relationship between audit quality and corporate governance mechanisms.

2.2 Audit, Auditing and Auditors

The word “audit” is derived from the Latin word “audire” which means the act of listening. In the audit process, there are two parties; auditee and auditor. Historically, the audit process comprised of an accountable person who used to defend his action in front of a relevant audience. As Bentham (1907) stated, cited in Harrison (1983), accounting is the soul of justice, audit can be presented as a substitute for democracy (Power, 1994). Audit serves as an intermediary between a principal and an agent. The rising problems of accountability are widely solved by presentation of social arrangement reinforced by the audit process. Audit is mainly presenting different administrative problems along with their solution. The auditees having such problems are not required to implement the auditors' solution since the auditor plays the role of “adding-value” to auditee parties. It can be noted here the similarity between the concept of UK corporate governance code and the conceptual framework of auditing. Both have the tone of recommendations rather than requirement and obligatory mode.

Audit is not limited to issuing audited financial statements. There is a growing frequency of using the word “audit” in the UK as environmental audits, value for money audits, management audits, quality audits, forensic audits, data audits, intellectual property audits, medical audits and many others besides. The audit practice evolution in the UK is due to different problems of controls, mainly regulatory failures, invisibility of the audit, and the construction of auditees.

The term “Big Four” refers to the biggest four accountancy firms worldwide which are Deloitte Touche Tohmatsu (Deloitte) Limited, PricewaterhouseCoopers (PwC), Ernst and Young (EY), and KPMG.

Deloitte was established in London in 1843 by an English citizen called William Welch Deloitte. He was the grandson of a French emigrant, Count de Loitte, who left France during the French revolution. Deloitte started his career at the age of 15 at the bankruptcy courts of London. In 1893, he became the president of the Institute of Chartered Accountants and established a US office during that year. The other founder, Sir George Alexander Touché (b.1861) was also an accountant from London and established his office in 1899. He specialised in income tax preparation while Deloitte was specialised in the audit of the railway industry. In 1975, Touché Ross merged with a Japanese firm named Tohmatsu Awoki & Co. In 1993, the firm was named as Deloitte Touché Tohmatsu due to the good reputation and the influence of the Japanese firm (Articlesbase, 2008).

PwC is considered to be one of the oldest accountancy firms among the Big Four. The history of PwC goes back to the 19th century in London. Samuel Lowel Price (b.1821) entered into the accountancy profession at an early stage before becoming a sole practitioner. Another founder, Edwin Waterhouse (b.1841) was one of the elite accountants in London. William Cooper established a rival accounting firm in London with his other three brothers. Samuel Lowel Price and Edwin Waterhouse & Co. merged in 1874 and created Price, Waterhouse & Co. It was one of the well-known and elite accounting firms in London and established a US office in 1890 in New York, USA. The fourth founder was William Lybrand, an American citizen, was operating his personal office in the US. William Cooper and William Lybrand merged in 1957 and created the Coopers and Lybrand accounting firm. In 1998, Coopers and Lybrand from one side and Price, Waterhouse & Co. from another side merged and created what is known today by PricewaterhouseCoopers (Articlesbase, 2008).

Unlike Deloitte and PwC, EY was initially established in the US but also as a result of a series of mergers. Two brothers, Theodore and Alwin Ernst, established their accounting firm in Cleveland, USA in 1903. In 1906, Arthur Young & Co accounting firm was established in Chicago, USA. Both firms merged with many successful audit firms in the UK. In 1989, the major merge took place creating what is known in our days by Ernst & Young (Articlesbase, 2008).

As for KPMG, it stands for the names of the founders as follows: Klynveld, Peat, Marwick, Goerdeler. Initially, Peat Marwick Mitchell & Co. was established in 1911 as a result of a merger between William Barclay Peat and Marwick Mitchell Co. In 1979, Thomson McLintock established a group of independent European firms known as KPMG. The merge between KPMG and Peat Marwick Mitchell & Co. took place in 1987. It was considered the largest accounting firms merger. It was renamed as KPMG Peat Marwick in 1991 until 1995, when it was renamed back as KPMG (Articlesbase, 2008).

2.3 Audit Quality

Stakeholders perceive audit quality from different perspectives (IAASB, 2103). Users of financial statements perceive audit quality as a tool to challenge management. It is said that the more resources are allocated, the better audit quality. On the hand, managements' perception of audit quality might be related mainly to coordinate with auditors for the sake for finishing auditing assignments as quickly as possible. Finishing audit assignments in reasonable time mitigates any disruption in companies' operations. Audit committees are established in many countries to assess if audit assignments are performed in an effective, efficient, reasonable and timely basis (IAASB, 2013). It is

evidenced from the above study the importance of communication between auditors and those charged with governance (ISA 265).

Different factors affect audit quality such as input, output and interaction among key stakeholders factors. The input factors relate mainly team expertise, their ethical behaviour, and the audit process itself. The output factors relates to the legislative requirement and the impact of stakeholders. The interaction among key stakeholders can affect the level of audit quality. The communication with those charged with governance at the planning phase to assess different risks and critical cycles can be an example of such impact on audit quality (IAASB, 2013).

Francis (2004) mentions that different approaches have been used to study the concept of audit quality. Audit tenure, percentage of non-audit fees, auditors' incentives from legal perspective, and hiring alumni auditors; are all considered potential proxies that have been researched to measure audit quality.

Non-audit fee is a signalling proxy for auditor independence rather than for audit quality. Delivering many services other than audit assignments by audit firms is also considered another factor affecting auditor behaviour (Knapp, 1985). For auditors' specialisation, there is evidence that specialised auditors assign junior staff and spend minimal time on reviewing the control framework that could lead to a lower quality audit (Cahan et al., 2011). Kwon et al. (2007) indicate that auditor specialisation can have an effective role in improving accounting quality in a weak legislative environment. Auditors' specialisation is a substitute of a weak corporate governance mechanism in a weak legislative environment rather than strong legal environment.

Audit fees has been used as a signalling proxy for perceived audit quality rather than actual audit quality (Holm and Birkholm, 2007; Krishnan and Visavanathan, 2009).

Actual chargeable hours for an audit assignment can be used as a proxy to measure actual audit quality (Dang, 2004). It is concluded that after many accounting scandals that took place, there is a wide doubt about the use of audit firm size as a proxy to measure audit quality. Actual audit quality is also measured by three different proxies as suggested by Gunny and Zhang (2012). It is argued that abnormal accruals, restatement of financial statements and the existence of going concern are potential proxies to measure audit quality (Gunny and Zhang, 2012). The mentioned proxies do fit the objective of this research. The research is assessing auditors' behaviour in relation with compulsory audit tasks rather than any other services offered by audit firms. Auditors' behaviour may overstate or understate chargeable hours that will consequently impact perceived audit quality when analysing fees with corporate governance mechanisms and companies' characteristics.

2.4 Regulatory Framework in the UK

Traditional business structures are changing while markets are facing governance revolution. This revolution is witnessed by the collapse of “End of family” in Europe and “The end of Tycoons” in Asia (Cheffins, 2001).

The revolution and transition that took place in Britain identified three main factors to be considered as significant factors: “company law, political ideology, and financial services”. Previous literature on the UK context indicated a major decline of families' ownership and control beginning in the twentieth century (Cheffins, 2006).

There are two basic principles of corporate governance as follows: effective and not only nominal accountability is required, and management should be able to run the enterprise without any fear of government interference or fear of displacement (Charkam, 1994).

In the UK corporate governance, emphasis on the interest of shareholders is much higher than corporate stakeholders (Armour et al., 2003). As a result of this emphasis on shareholders' interest, the shareholder value model was introduced in the UK context. This model did not reach the “end history” as it is not recognised fully. Globally, the corporate governance is classified into two categories: mainly outsiders/arm's length systems and insider/control-oriented systems. The insider/outsider system refers to the level of owners' concentration, while the arm's length/control-oriented system refers to the level of activities exercised by shareholders in areas related to corporate governance.

The UK market is characterised by passive shareholders where 85% of listed companies do not have one shareholder owning more than 25% or more voting right. They are referred as to passive due to the fact that they have a small amount at stake and subsequently they have no incentives in the corporation. Regardless of the passive nature of shareholders and their minimal involvement in corporate governance, it is concluded that the relationship between corporate governance mechanisms and performance is at best weak (Weir et al., 2007).

Corporate governance is defined to be a set of mechanisms that control and monitor top management activities and decisions on behalf of companies' stakeholders (Donnelly and Mulcahy, 2008). Other studies defined corporate governance as a system that controls and directs companies to give an accountable image to shareholders and stakeholders (Tylecote and Ramirez, 2006). The term “corporate governance” existed before the 1990s. It is used along with “fair trade” and “free competition” to achieve universal respect (Keasey et al., 2005). As a result of creative accounting drivers, different financial failures, agency cost and problems between management and shareholders and the role of auditors, all these factors led to the formation of the first

UK corporate governance committee, known as the Cadbury committee, in 1991. The committee published the Cadbury report in 1992. The main recommendations of the Cadbury report were directions towards areas of control and accountability and disclosures related to boards of directors and other committees. Before the Cadbury report was introduced, companies were free to disclose their board of directors and directors' independence status.

The code has a tone of being recommended rather than obligatory. The companies were asked to include a statement in their annual report related to their compliance with the Cadbury report. The recommendations were successfully adopted at least by large public companies.

The Hampel committee was established in 1995 to review comments and criticism on the Cadbury report. The Cadbury report is criticised because it is very limited to accountability and control areas rather than meeting the main objective of corporate governance, which is improving and developing business overtime. The Hampel committee issued the Hampel report in 1998 that emphasised the balance between accountability and control and improving overall business. It also highlighted the “form over substance” assumption. This assumption implies that compliance with the corporate governance code is not a "box-ticking" exercise.

The Greenbury report (1995) was issued to give guidance and recommendations regarding directors' remunerations. It was published as a result of cumulative concerns over the dramatic increase of directors' remuneration. While it was mentioned in the Cadbury report that a remuneration committee should be established to determine directors' remuneration; the Greenbury report explicitly stated that remuneration committees should be established exclusively from non-executive directors. Also, it

required companies to include detailed disclosure about directors' remuneration, their name, nature of remuneration (share option, pension right, cash, bonus etc.).

In 1998, the Combined code was established combining the Cadbury report, Greenbury report and the Hampel reports' recommendations. The three reports have a tone of recommendations and guidance rather than an obligatory tone. It consisted of 18 principles and 48 code provisions. A summary of the previous corporate governance codes from the Cadbury report (1992) to the Combined code (1998) is as follows:

Cadbury Report	Greenbury Report	Combined Code
Directors		
The roles of CEO and chair should ideally be separated		The combination of the roles of CEO and chair should be publicly explained.
Where the post of CEO and chair are combined, there should be a strong independent set of NEDs.		A senior independent NED should be identified in the annual report (regardless of whether CEO and chair are combined).
There should be a minimum of three NEDs of which at least should be independent.	There should be a minimum of three independent NEDs	There should be a minimum of three NEDs and NEDs should comprise not less than one-third of the board. The majority of NEDs should be independent.
Independent NEDs are those who are 'independent of management and free from any business or other relationship which could materially interfere with the exercise of their independent judgment'.	Independent NEDs are those who have 'no personal financial interest other than shareholders in the matters to be decided, no potential conflicts of interest arising from cross-directorships and no day-to-day involvement in the running of the businesses'.	Definition of NED independence as Cadbury.
Nomination committees should make recommendations to the board regarding all new board appointments.		Nomination committees should be established (unless the board is small) comprising a majority of NEDs, chaired by the board chair or NED and all members should be identified in the annual report.
NEDs should be appointed for specified terms and reappointment should not be automatic.		All directors should be required to submit themselves for re-election at regular intervals and at least every three years.
Directors' remuneration		
Executive directors' should be subject to the recommendations of a remuneration committee comprised wholly or mainly of NEDs.	The remuneration committees should be comprised of exclusively of independent NEDs.	The remuneration committee should consist of independent NEDs.
	The remuneration committee should report to shareholders annually.	The remuneration report should be in the name of the board, rather than of the remuneration committee
Full disclosure is required of directors' total emoluments and those of the chair and highest paid director (including pension contribution and share options).	Full disclosure is required of all elements of the remuneration package (including share options and pension entitlements) of each named director.	As Greenbury.

Executive directors' contracts should not exceed three years without shareholder approval.	Remuneration report should provide an explanation of the company's policy on the setting of executive remuneration. Executive directors' contracts exceeding one year should be disclosed and explained.	As Greenbury. As Greenbury.
	Shareholder's approval is required for the adoption of long-term incentive plans. Share options should never be issued at a discount should be phased in rather issued in one stock and should not be exercisable in under three years.	As Greenbury. Awards in one large block rather than phased in should be explained and justified.

Shareholders

Companies should indicate level of proxy votes logged on each resolution proposed at the AGM and the balance for and against each.
 Companies should propose a separate resolution at the AGM on each substantially separate issue.
 The chairmen of the audit, remuneration and nomination committees should be available to answer questions at the AGM.
 The notice of the AGM and related papers should be sent to shareholders at least 20 working days before the AGM.

Accountability and audit

Audit committees comprising at least three NEDs should be established.

The directors should report on the effectiveness of the company's system of internal control.

The directors should report that the business is a going concern.

Audit committees should consist of at least three NEDs, the majority of whom should be independent and all members are to be named in the annual report.
 The board should, at least annually, conduct a review of the effectiveness of the group's system of internal controls and should report to shareholders that they have done so.
 As Cadbury.

Compliance with corporate governance codes and provisions should be an incentive for better competitive advantage for multinational corporations (Windsor, 2009). Requiring entities and enterprises to abide by different codes and tightening corporate governance codes explicitly means an increase in compliance with international codes and guidelines. There are two main perspectives of corporate governance. The first perspective highlights shareholder wealth maximisation; while the second perspective emphasises that corporate governance is a mix of codes of ethics, transparency, disclosures, and accountability (Gill, 2008)

Effective and efficient corporate governance rests with the integrity and ethical behaviour of directors and executives (Cadbury, 2006). Unlike the Sarbanes-Oxley act (2002) in the US, the UK responded to corporate governance failures by introducing the “Comply and Explain” approach. This approach leads to better corporate governance rather than having the UK corporate governance codes and provisions regulated and legislated (Arcot et al., 2010). The “Comply and Explain” has been implemented to encourage companies to abide smoothly by the UK corporate governance code rather than performing a “box-ticking” exercise.

Corporate governance code is highly recommended rather being enforced on companies to achieve a better transparent relationship between shareholders and management. The code summarises different principles such as leadership, effectiveness, accountability, remuneration, and relations with shareholders (UK corporate governance code, 2010). As part of applying these principles, different issues are raised that may prevent companies to be in full compliance with corporate governance codes, and one of these critical issues is the agency cost that is closely related to agency theory.

Corporate governance is defined to be a set of mechanisms that control and monitor top management activities and decisions on behalf of companies' stakeholders (Donnelly and Mulcahy, 2008). The main objective of corporate governance mechanisms is to separate between ownership and control using agency theory (John and Senbet, 1998). There is a direct relationship between firm value, external financial needs, investment opportunities and product market competition with governance mechanisms (Chen et al., 2010). The results showed that besides the importance of corporate governance on firm value, external forces such as the financial needs and market opportunities are also related to corporate governance mechanisms.

2.5 Corporate Governance Framework

Dey (2008) conducted a study on the relationship between corporate governance and agency conflicts. It was hypothesised that the level of agency conflict is higher in larger, more complex and management control companies. The results supported the hypothesis indicating a positive relationship between corporate governance mechanisms and agency conflict. It was concluded that companies facing high agency problems have good corporate governance mechanisms, mainly independence and effectiveness of Board of Directors (BoD) and audit committee, measured by the percentage of outside directors and frequency of meetings. Dey (2008) mentions that due to competitive pressure on capital, goods, and labour markets, companies facing high agency problems have good corporate governance mechanisms. Through empirical research, he mentioned that this result supports the theory on corporate governance that describes governance mechanisms to be a mirror or endogenous output of every company's business and economic environment. This conclusion indicates that "no size fits all" when it comes to apply different mechanisms of corporate governance best practices.

Dey (2008) mentioned that this result supports the theory on corporate governance that describes governance mechanisms to be a mirror or endogenous output of every company's business and economic environment.

Analysing the effects of ownership structure on corporate governance mechanisms was studied by Holm and Scholer (2010). The study focused on the transparency factor to minimise the flow of asymmetric information. The sample is made up of 100 listed companies at the Copenhagen stock exchange, Denmark. It was hypothesised that companies with more spread ownership and exposure to international markets have high levels of corporate governance transparency. Holm and Scholer (2010) concluded that transparency only, not ownership structure and board independence, is revealed to be a significant corporate governance mechanism, but only in the context of two-tier board of directors; a BoD charged with the management of the company and board of commissioners charged with the supervision of BoD performance over company's management. The level of disclosures is found to be irrelevant to the level of transparency. This result does not align with Dey's (2008) conclusion, where it was stated that companies with higher agency problems have better corporate governance mechanisms performance, since Holm and Scholer (2010) found no impact for ownership structure and board independence on transparency levels.

Leuz and Verrecchia (2000) conclude that the level of disclosures is a significant factor in economic benefits. The sample of this study is made up of companies in Germany which switched to International Accounting Standards (IAS) or to US General Accepted Accounting Principles (US GAAP) in their financial reporting process. Effective and increased levels of disclosures help investors to gain more confidence in the firm from one side and help companies to gain economic and statistical benefits. A study was

conducted to analyse the relationship between agency costs and corporate governance mechanism, ownership structure and board size (Singh and Davidson III, 2003). It was hypothesised that high agency cost is positively related to low asset turnover ratios and high Selling, General, and Administrative (SG&A) expenditures. For ownership structure it was hypothesised that a positive relation exists between outside block ownership and asset utilisation, but negative relation to SG&A. For board size, it was hypothesised that board composition plays a significant role in corporate performance reducing agency cost. Singh and Davidson (2003) concluded that inside ownership/managerial ownership and smaller boards are positively related to reduction in agency cost due to the fact that inside shareholders behave better for the interest of companies more than outside block holders. The existence of inside ownership is found to be insignificant in reducing SG&A expenditures account. For board size, it was concluded that outside directors do not have extra power to reduce agency cost.

The style of leadership is one of many other principles that characterise the code of corporate governance. Duality role of a chairman and a Chief Executive Officer (CEO) is considered one major attribute in measuring corporate governance mechanisms. Henry (2010) concluded that duality role is positively and significantly related to firms' asset utilisation. Contrary to Henry (2010), Coles and Hesterly (2000) conclude that firms with separate CEO and chairman positions and having a chairman who was not a former officer of the firm enjoy a better stock price. The results of the study show that combined leadership might be mitigated by having board of directors comprised of more independent directors. Unlike Singh and Davidson (2003) who state that inside/managerial ownership is positively related stock price and indirectly to better firm's performance, Judge et al. (2003) state that such relation between corporate performance and inside ownership is only positive in non-retrenchment situations. In

other words, inside holders' interest align with the interest of management in normal conditions but not in loss or downsizing conditions. Contrary to Henry (2010), where it was stated the positive impact of duality role, Jude et al. (2003) conclude a negative relation between "informal" role duality and corporate performance. The word 'informal' used to highlight that role duality between a CEO and chairman of the board is prohibited in Russia, but it exists in some companies included in the study's sample as a common practice.

2.6 Theoretical Foundation

Saam (2007) states that in agency theory, the principal exercises more power than agents when facing agency problems. But in a hidden information situation, where management is exposed more to operations, the agent has more privilege than the principal. In such a hidden information situation, audit quality may be affected due to the flow of accurate information and data auditors may receive to support their work before submitting their reports to boards of directors and consequently to shareholders. In an agency relationship, a principal is expected to increase agent's efforts by more monitoring, but heavy monitoring has some hidden costs affecting interpersonal relationships and reducing social distance (Dickinson and Villeval, 2008). Due to the nature of the auditing profession, which is based on interaction with companies' management and personnel, reducing social distance affects the scope and quality of the audit.

Since shareholders elect board of directors who are responsible to assign external auditors (UK corporate governance code, 2010), dividends paid to shareholders are considered a tool to satisfy agency problems and conflicts (Adjaoud and Ben-amar, 2010). Audit fees are also considered to be one type of agency costs (Leventis et al.,

2011). The researchers mention that agency cost cannot be eliminated in practice but only in ideal conditions. They accordingly hypothesised an inverse relationship between audit fees and competition level. It was concluded that as competition increases audit fees decline. Auditors tend to reduce the number of audit hours that will lead to lower audit fees. It is argued that in a highly competitive market, managers increase their monitoring to be able to compete better. Due to this argument, auditors rely on the increased monitoring by managers to compensate the decrease in audit hours and consequently lower audit fees (Leventis et al., 2011).

There is an agency conflict between management and audit committee chairs (Haka and Chalos, 1990). This agency conflict is evidenced where internal and external auditors align themselves with management highlighting the issue of auditors' independence. Moreover, more agency cost through heavy monitoring (Dickinson and Villeval, 2008) may lead to a variance in audit quality.

Agency theory is used to explain the theoretical framework between audit quality and governance mechanisms. Shareholders, through the election of a board of directors, establish an external layer of control over management by assigning external auditors. Management has incentives for a better quality audit that reflects transparency and more reliable financial statements and explanatory disclosures which reduce information asymmetry problems (Jensen and Meckling, 1976). This reflects that management practices align and serve shareholders' interest which minimise agency conflict cost.

2.7 Auditors' Behaviour and Audit Firm Factors: Gaps and Potential Contribution

Audit firms, through the use of tight time budgets and different norms of efficiency, are passing pressure to individual auditors (McNair, 1991). McNair

addressed the Management-Control Dilemma and what action plans audit firms are implementing to minimise the effect of this Dilemma. He differentiated between quality concerns and costs constraints. While the first part of the Dilemma talked about efforts to increase audit quality, the other part initiated potential resolutions for efforts reducing techniques. McNair emphasised the "cost quality" trade-off conflict faced by audit firms. He raised the issue of pressure concentration where time-budget pressure was concentrated at senior levels, who are used to accepting such pressure along with all staff members.

He concludes, from an interpretive framework and data collected through interviews with different auditors' levels, that audit firms are resolving every Dilemma on a case-by-case basis. This has been considered to be the most risky solution since audit firms are relying only on auditor ethical behaviour to solve any conflict. This study was conducted in 1991 as mentioned before, where some treatments might be implemented by audit firms to resolve any Cost-Management Dilemmas in a structural manner.

Another study covering areas related to the level of commitment and moral reasoning of auditors was conducted by Lord and DeZoort (2001). Unlike McNair (1991) who conducted interviews among all levels of auditors, this study used the "*case study*" method when testing the populated sample. The researchers hypothesise that obedience and conformity pressure play a significant role in auditor behaviour leading to inaccurate sign off of audit procedures, and they highlighted also that auditors facing more obedience pressure will have higher tolerance misstatement levels than those facing conformity pressure. Another assumption was included in this study related to social influence and levels of organisational and professional commitment. The level of tolerance misstatement is higher with auditors having a lower level of professional and

organisational commitment under social influence. The population sample of this study was comprised of 171 audit staff members from one international accounting firm in the US. The subjects received materials containing an error of asset valuation. After examining the case, they were asked to reply in two questionnaires: organisation commitment and professional commitment ones. It was concluded that obedience pressure along with superior's instructions are causing willingness to sign-off an account which is materially misstated.

But for conformity pressure, results and analysis showed there is no major effect of such pressure on auditor behaviour. It was also concluded that organisational and professional commitment effects disappeared significantly when social influence is taking place.

Lightner et al.. (1982) issued a study about auditor behaviour relating the consequences of such behaviour to social, ethical, and motivational factors. Contrary to Lord and DeZoort (2001) and McNair (1991), the researchers use the questionnaire method to analyse results. The study was conducted to determine the causes of Unrecorded Chargeable Time (UCT) only. The researchers analysed in this research the specific factors that lead to a UCT. These factors were categorised into three groups comprising five independent variables as follows: Motivational Force, Ethical Factors (Individual approval to un-record actual chargeable hours), and situationally-determined variables (supervisors' request, feasibility of meeting budgets, Actual situation).

The sampled population consists of 1,016 questionnaire-responses from three of the big eight national accounting firm in the US. This big sample was separated into two groups. The first group (506 replies) was used to discover the relation between variables

where a cross-validation procedure was implemented. The second group (510 replies) was used to test the consistency of findings in group one. In other words, the second group was a “cross-validating” sample. Ordinary Least Square (OLS) was used to analyse the surveys’ results. The results showed that “feasibility of meeting budgets” was the most explanatory variable leading to UCT. This was due to accountants’ perception and unwillingness to be seen as incompetent, their efforts to keep good quality service to the client, and to maintain a good percentage of assignment realisation. The feasibility for meeting budget variable was also linked to personal normative beliefs and their willingness to disapprove or approve the under-reporting behaviour (Lightner et al., 1982).

Coram et al. (2004) analysed Reduction Audit Quality (RAQ) against two factors: time budget pressure and risk of misstatement. They hypothesise a negative relation between RAQ and the level of risk of misstatement. 103 experienced auditors employed at big five (four) audit firms in Australia comprised the population of this research. They were given a case regarding an audit of a factitious manufacturing company with outlines related to time budget, audit tests to be performed and a section to study two possible RAQ situations as follows: 1) Accepting doubtful audit evidence and 2) Truncating a selected sample.

The results showed that accepting doubtful evidence is directly affected by the time-budget pressure variable but it is not the case for risk of misstatement, but for minimising a sample, the risk factor has a conditional effect. In other words, auditors tend to minimise a sample when there is a low risk of misstatement.

As a result of the above analysis, Coram et al. (2004) concluded that RAQ behaviour acts (accepting doubtful audit evidence, truncating a selected sample) are not equally treated by auditors.

The impact of audit seniors is playing a major role in damaging the image of the profession (Herrbach, 2001). Herrbach (2001) hypothesises that there is quality-reduction behaviour leading to negligence behaviour. He chose the elements of psychological contract (Human Environment, Salary, Training, Autonomy, and Control) between auditors and their audit firms. The dependent variable was defined as quality reduction by audit seniors and related to independent variables that are the elements of the psychological contract between auditors and audit firms. Moreover, Herrbach analysed non-professional behaviour against the following factors: Control Autonomy, Training, Salary, Under-reporting of time and affective commitment. He used the questionnaire method over a population of 170 auditors (395 sent, 170 received) working in a large audit firm in France.

The researcher concludes that all psychological elements, except salary, are negatively related to an increase of audit-quality-reduction behaviour. As far as those variables increase, audit quality reduction behaviour decreases. This study was conducted on a sample of audit seniors working in one audit firm in France.

Adverse to the technique used in assessing irregular auditing, Lee (2002) conducted in-depth interviews for his study "professional socialisation commercial pressures and junior staff's, time pressures and irregular auditing – A contextual interpretation". The study explained irregular auditing, causes and effects. Then, Lee (2002) mentioned the risk-based auditing that is being implemented by audit firms. It mainly explains areas where an auditor can tolerate some misstatements (in low risk areas) to avoid time

wasting and time spending. Before conducting his research, Lee (2002) had different interviews with partners and senior managers to get their feedback on audit juniors' judgment-learning process.

The population was made up of staff auditors employed at twelve national audit firms in southern England. As a result of interviews made, Lee (2002) concluded that junior auditors, under risk-based auditing, are given the professional freedom to decide on the time allocated to them, based on budgets. Time would be used efficiently to obtain the possible evidence that might reduce material misstatement. This condition is giving staff auditors the ability to decide either to limit or to expand their work in areas not material to the accounts. In this way, staff auditors are showing commitment in compliance with audit methodology from one side and reducing quality audit (irregular auditing) from another side, but only in areas not material to the accounts (Lee, 2002).

Some studies have limited auditor behaviour against time pressure and its consequences (McDaniel, 1990). McDaniel conducted an experiment over 179 staff auditors from one audit firm to analyse the relationship between time pressure and performance (efficiency and effectiveness), audit programme structure and performance, and time pressure and audit programme structure interaction. The materials package used to perform this experiment was mainly made up of an audit task and a set of instructions to be prepared by staff auditors. McDaniel (1990) classified four groups from the population of staff auditors, where every group was assigned a different deadline to finalise this experiment that ranged from low pressure (plenty of time) to high pressure (very short time). After performing the task, a questionnaire was distributed in addition to an open-ended question in the last section of the questionnaire. McDaniel concluded that as time pressure increases, audit effectiveness decreases

where other variables such as audit programme structure increases audit effectiveness. But on the other hand, if time pressure increases, audit efficiency increases but not in a structural audit programme scenario. Her findings were the result of an experiment on auditors from one audit firm in the US.

In addition to McDaniel's (1990) research, an empirical study was conducted to analyse the effect of Time Budget Pressure (TBP) and Time Deadline Pressure (TDP) defined as an independent variables against the following dependent variables: 1) subjective stress measures 2) organisational behaviour measures and 3) cognitive problems (Margheim et al., 2005).

The population of this study is made up of three of the Big Four firms and two non-Big Four Certified Public Accountants (CPA) firms in the US. Audit seniors and staff auditors were the experiment subjects, where they received case materials for the audit of a small software company. ANOVA and MANOVA were used for testing procedures analysis (Margheim et al., 2005).

For subjective and organisational stress measures, it was concluded that both types of pressures, TBP and TDP, would cause increased levels of stress. No interaction is needed between TBP and TDP to cause an increased level of subjective stress measures and auditor dysfunctional behaviour, but additional stress is noted when the two types of pressure are encountered. As for cognitive problems, researchers had to separate senior from staff auditors for accurate analysis. It was concluded that TBP pressure was causing cognitive problems more for senior auditors than TDP, while both types of pressure had significant effects on staff auditor cognitive problems (Margheim et al., 2005).

Glover (1997) analysed time pressure and related it to the type of information auditors were obtaining and it meant that a different treatment of auditors' behaviour analysis was covered by Margheim et al. (2005) and McDaniel (1990). The existence of diagnostic and non-diagnostic information and their role in imposing time pressure were researched by Glover (1997) in his article "The Influence of Time Pressure and Accountability on Auditors' processing of non-diagnostic information". This study linked independent variables of time pressure, auditors held accountable, and the type of diagnostic information to the dependent variable: an exhibit of dilution in auditors' judgments. Glover (1997) hypothesised that auditors facing time pressure and dealing with diagnostic and non-diagnostic data will have less dilution in their decisions and judgments compared with those not facing time pressure.

The study was conducted over 156 auditors employed at the big six audit firms in the US. The subjects (auditors) were given a laboratory experiment including two audit cases. They were asked to assess the audit risk of different cycles. The subjects were divided into two groups; "time pressure" and "auditors in accountability" groups. The researcher used ANOVA testing to analyse the experiments' results (Glover, 1997).

The results of the laboratory experiment show that only the time pressure factor, excluding holding the auditor accountable factor, may affect auditors' judgments. An interesting conclusion was reached stating that when auditors are dealing with non-diagnostic information, the time pressure factor has positive consequences by pushing auditors to eliminate non-useful data leading to a reduction in judgmental bias. In the case of auditors dealing with diagnostic information only, the results supported previous studies that it significantly reduces but does not eliminate dilution (Glover, 1997).

Another kind of research was conducted to analyse auditors' personality characteristics rather than dealing with factors of pressure (Choo, 1986). This study defined the four types of personalities as follow: Type A personality (tense and anxious person), control, commitment and challenge personality. All these independent variables were measured through Likert scale-type questionnaires when distributed to the sampled population. The dependent variable of this study is the job-related stress which was also measured by a job-related tension scale, a 15-items scale. A correlation test was performed to ensure that variables were not significantly related and a multiple regression test was used to analyse the relationship between dependent and independent variables. The population of this study comprised auditors working in small and big offices; 172 questionnaires were received which constituted the material to be analysed.

The results showed a positive relationship between job-related stress and type A personality, while there was a negative relationship between job-related stress and control, commitment and challenge personalities. As type A personality characteristics increase in an auditor's personality, his perceived job related stress increases also; while as the other three personality characteristics increase in an auditor's personality, their level of job related stress decreases (Choo, 1986).

Choo performed another study in the same article 'Job stress, Job Performance, and Auditor Personality Characteristics', where he related performance rating to job-related stress from a theoretical point of view. He concluded, through using the same population of the first study, that performance generally increases under pressure, but it reaches a maximum level and then declines. He noted that knowing every personality's optimum level is the critical point in this analysis, since different personalities have different optimum levels of stress.

It was mentioned that type A personality, due to the fact that it perceives pressure more than other personalities, maybe have an increase in performance as stress increases but when it reaches the optimum point, performance declines. The same analysis was applied to the other three personalities. Whereas auditors who possess more challenge, control and commitment dispositions, the less they suffer. As a result of the minimised stress, a reduction of the personalities' characteristics may lead to better performance. When those kinds of auditors face pressure more than the optimum level, then acquiring more challenge, control and commitment dispositions will reduce stress and lead also to better performance (Choo, 1986).

A different approach article stating review sessions would lead to better performance was conducted relating audit reviews to auditors' motivation and performance (Miller et al., 2006). They hypothesised that auditors' motivation to improve, and auditors' performance improvement, is greater when there is a discussion during a review session between preparer and reviewer. The other hypothesis was about performance and performance improvement, where they suggested that level of improvement is greater for inexperienced auditors than for experienced auditors.

For the purpose of the study, the researchers prepared a survey in a form of a questionnaire to be sent to pairs of auditors, reviewer and preparer. For example, a senior and a staff auditor who worked on one assignment would be considered a "pair". They received 154 pairs of questionnaires from a sample of auditors from big six accounting firms. Ordinary Least Square (OLS) regression was used to analyse results to support or reject the hypothesis. The results showed that discussion during a review session is positively related to preparer's motivation but it is negatively related to reviewer's motivation. For the performance improvement variable, the results also

showed that it is highly related to the level of experience of auditors. Preparers obtain an increase in performance improvement compared to reviewers. The researchers commented on the negative relationship between level of experience and motivation and performance improvement, by stating that experienced auditors might be trained to such a processes of evaluation that could have led to this negative relationship (Miller et al., 2006).

Similar to Choo (1986) but not reaching exactly the same results, different stress factors combined with personality dispositions were studied (Fisher, 2001). Fisher defined job stress factors to be role ambiguity and role conflict. He hypothesises that there is a negative relationship between role ambiguity and conflict (independent variable) against auditor job performance and job satisfaction (dependent variable).

The other hypothesis stated in this study was about Type A personality. It was assumed that Type A personality significantly intensifies the negative relationship between role ambiguity and conflict from one side and job performance from other side. This assumption was also used when relating role conflict and ambiguity to job satisfaction. Fisher (2001) used the "Kolmogorov-Smirnov" normality test to test the correlation between variables and the distribution of variables where normal results were concluded.

The research's population was made up of 123 questionnaires completed by auditors employed at two of the big five public accounting firms located in New Zealand. Questionnaires were only sent to partners and to auditors who had a minimum of twelve months' experience.

Analysis of the results supported the hypothesis of the negative relationship between elements of stress (role ambiguity and role conflict) when linked to job performance and

job satisfaction. The survey revealed a lower level of stress perceived by audit partners and this conclusion reflects the partners' control over sources of stress, ambiguity and conflict. The results showed little evidence about extreme levels of stress faced by auditors in their work environment which contradicts many previous studies that covered stress levels and related consequences of inappropriate behaviour (Fisher, 2001).

Peytcheva and Gillet (2012) defined quality-threatening behaviour (QTB) as an international dysfunctional behaviour exercised by external auditors during an audit assignment. QTB is caused by perceived reputation threats. The results show that experienced auditors, rather than audit trainees, have more tendency to ignore audit evidence that is inconsistent with earlier audit decisions. This is due to the perceived reputation threat by prior involvement of auditors. The prior involvement factor may push auditors to ignore some audit evidence that is inconsistent with previous audit decisions (Peytcheva and Gillet, 2012). Other researchers covered two areas of auditor behaviour which are: 1) Under-Reporting of Time (URT) and 2) Quality Threatening Behaviour (QTB) (Pierce and Sweeny, 2004). URT was linked to the following independent variables: Budget attainability, Budget participation, Leadership consideration, Leadership structure, Budget style of evaluation, Non-accounting style of evaluation, and frequency of evaluation.

QTB was correlated with the following independent variables: Time deadline pressure, Budget attainability, Budgetary participation, Leadership consideration, Leadership structure, Budget style of evaluation, Non-accounting style of evaluation, and frequency of written evaluation (Pierce and Sweeny, 2004).

Pierce and Sweeney (2004) hypothesised a negative relationship between budget attainability, auditor participation in setting budgets, leadership structure, and reliance on budgets for performance evaluation with dysfunctional behaviour. The other hypothesis was about positive relationship between time deadline pressure and QTB.

They conducted their research based on a pre-testing scenario using small groups of accounting academics and ex-auditors as a pilot survey to assess changes in the audit field. One hundred and thirty questionnaires (316 sent, 130 received) were used to assess responses from audit juniors and seniors in four of the big five audit firms in Ireland. Parametric regression was used to test the hypothesised relationship, and multiple regression analysis was used to construct models of the dependent variables (Pierce and Sweeney, 2004).

It was concluded that budgets are seen as less important than reported in previous studies because tight budgets can be implemented when firms are overstaffed but not in employees under shortage conditions. They also concluded that budgets are more important in smaller audit firms where fees are tighter. Time deadline pressure was directly related to Premature Sign Off (PSO) where audit firms have been imposing pressure to complete and to start another assignment. Leadership consideration and level of participation in setting budget variables were not significantly related to URT and QTB.

Contrary to Pierce and Sweeney (2004), Kelly and Margheim (2002) conducted a study related to staff auditor time budget pressure and how their behaviour is affected by the senior auditors' level of participation in preparing budgets, seniors level of intervention in structuring audit assignment and if senior auditors take into consideration staff auditor perception to pressure. They used the questionnaire method to receive responses

from eighty-five matched pairs of senior and staff auditors who worked on the same audit assignment. Three US offices from a CPA international firm participated in this study where a regression analysis, a two person model, was used to relate audit seniors' and staff responses.

The results revealed a lack of correlation between senior and junior auditors. For example, staff auditors perceive more Time Budget Pressure (TBP) when seniors are involved in budget setting, while senior auditors believe that there is less TBP on staff auditors when they are involved in budget planning. For audit structuring, there was a negative relation between staff auditor perception of TBP and senior job structuring. It was assumed in this finding that if there is less senior job structuring, there is a high staff auditors' perception of TBP.

Kelly and Margheim (2002) mentioned that these findings show a big gap between senior and staff auditors. While seniors believe that if they participated in budget preparation, pressure will be less on staff auditors, but the results showed exactly the opposite.

Another study analysing budget tightness was conducted on a population sample from Mauritius (Soobaroyen and Chengabroyan, 2006). What makes this research different from previous studies is that it covered developing countries rather than developed countries. The researchers linked budget tightness to Premature Sign-Off (PSO), Under-Reporting of Time (URT), level of participation in the time budget and level of influence of the audit programme. Over 52 questionnaires were used, completed by auditors working from the top 20 audit firms in Mauritius. The researchers used one way ANOVA to analyse the relationship between the variables. To avoid biased replies or improper questionnaires content, a pilot test was conducted and performed by an

audit partner and accounting lecturers at the University of Mauritius. Also, an ANOVA test was performed to study the extent of the relationship between budget tightness and different independent variables.

Survey results showed that as budget tightness increases, PSO would increase also but only to a certain threshold, then it decreases at higher levels of budget tightness. What is different from other studies is that no significant relationship took place between URT and budget tightness in addition to smaller evidence of the perceived levels of role stress auditors face in their work environment. This was due to the fact of companies' nature and size in Mauritius, and it was noted that companies have closer business and family relationships, which might have played a major role in smoothing the budget tightness levels and its consequences (Soobaroyen and Chengabroyan, 2006).

McNamara and Liyanarachchi (2008) analysed the behaviour of auditors against time budget only. The study includes auditors from the Big-Four and non B-g-Four audit firms . It is concluded that time budget have an impact on dysfunctional behaviour on auditors. The purpose of the current research is to relate dysfunctional behaviour to audit quality. It is perceived that audit quality is accomplished more by Big-Four auditors rather than other auditors in the UK.

Another study on components of pressure was conducted in relation to time budget pressure (Otley and Pierce, 1996). Otley and Pierce conducted their research on audit seniors working in three of the big six audit firms in Ireland using the questionnaire method.

They hypothesised that as budget tightness increases; reduction in audit behaviour and under-reporting of time will increase, but not in an increasing rate but it will reach a maximum level and then decrease. Otley and Pierce (1996) also hypothesised that

budget attainability is positively related to senior auditors' level of participation in setting budgets and the "perceived influence of audit programme", while budget attainability is negatively related to the "perceived influence of clients over audit time budgets".

The study was conducted over a population of audit seniors working at three of the big six audit firms in Ireland. Otley and Pierce (1996) found that time budgets were generally perceived as demanding targets. It was also surprising that meeting a budget deadline has been used as a significant factor by audit seniors in their performance evaluation and their progress in the audit firm, rather than using budgets' attainability as a main goal to accomplish audit assignments with limited time and having the same level of audit effectiveness. This supports another conclusion stating that if seniors were not involved in audit reduction behaviour and under-reporting of time, budgets would never be attained or less attained. They concluded that budgets are a very demanding target, and are correlated with the evaluation ratings rather than maintaining a better quality of audit.

Also, Ponemon (1992) conducted a study to determine the determinants of auditors' under-reporting of time as the only dependent variable. He related this variable to two independent variables: budget attainability and peer pressure, where those variables relied basically on the auditor's moral reasoning and his different levels (high moral and low moral). In other words, Ponemon tried to analyse the factors of under-reporting of time and the impact of auditors' level of moral reasoning to commit an under-reporting of time or not when faced with peer pressure and budget attainability pressure.

The sample of the study was made up of 88 staff auditors from a national public office in the US. All subjects of the experiment were assigned into two groups: 1) Time budget pressure group, and 2) Peer pressure group.

There was also a control group that did not have any kind of pressure. They were given an audit task to complete (bank reconciliation and completion of cash work paper) and a questionnaire to answer. Ponemon (1992) defined psychology of moral reasoning as follows: "the psychology of moral reasoning provides a theory that explains the human decision-making process prior to ethical behaviour". It was concluded that audit firms may reduce under-reporting of time by increasing moral reasoning levels, since auditors with low moral reasoning tend to have dysfunctional behaviour more than those with high levels.

False sign-off is defined as when auditors clear an audit procedure stating it has been accomplished but in fact it has not (Hyatt and Taylor, 2012). Hyatt and Taylor (2012) concluded that audit supervisors tend to report false sign-off of staff auditors when it was made intentionally and when the staff auditors are not facing time budget pressure. The study is related to the theory of "retributive justice" and to what extent observers (senior auditors) assign responsibility to a wrongdoer (staff auditors).

An audit case study was prepared in a form of an experiment and 55 responses were usable. The sample subjects comprised of auditors employed at large national CPA firms in Midwestern states, Cleveland, USA. It was hypothesised that a positive relationship between intentional false sign-off and existence of time budget pressure to senior auditor reporting on false sign-offs. The results show that senior auditors are more tolerant with false sign-offs when the act is unintentional and took place under high time budget pressure. As a result of this survey, Hyatt and Taylor (2012)

highlighted the training aspect. They reinforced the importance of staff auditors training programmes for less-false sign-off activities. Also, senior auditors should be trained more about their perception on when and what to report and to be vigilant when reviewing staff auditors' work.

2.8 Role of External Auditors in Corporate Governance

The role of external auditors has always been an issue of debate regarding the nature, responsibility, and scope of tasks performed by auditors. Abdel-Khalik (2002) focused on the role of auditors as being an agent to the management. Instructors teach students that auditors are a "*watchdogs*" for shareholders. Abdel-Khalik (2002) referred to these terms because in fieldwork, auditors are in relationship with management on a daily basis during the audit assignment, while they are only compensated and selected by a board of directors. Subsequently, the existence of agency conflict in management-board of directors' relationship affects the external middle layer of governance, the external auditor. Habib and Bhuiyan (2011) support indirectly Abdel-Khalik's (2002) result by mentioning that the role of external auditors is considered an important factor in the classic agency problem between shareholders and management.

Investors rely on audited financial statements in their investment decision-making process. It is argued in this study that auditor specialisation is inversely related to audit report lag. Audit report lag is defined to be the period between the company's fiscal year and audit report date. The results show that, as auditors are more specialised in the industry they audit, the less is the audit report lag. It is due to the fact that specialised auditors can spend less time to finalise an audit assignment and subsequently minimise the time period between the fiscal year and the audit report lag (Habib and Bhuiyan, 2011). Audited financial statements are prepared by external auditors for the sake of

helping different stakeholders in investment decisions (Ussahawanitchakit, 2012). As part of maintaining a quality audit, auditors have to comply with set auditing standards (Generally Accepted Auditing Standards) that include different standards and statements that help in improving audit quality.

Ussahawanitchakit (2012) argues that there is a significant positive relationship between audit planning and audit quality. Audit planning is defined to be the preliminary process auditors perform in the planning stage of an audit assignment. In particular, it involves understanding a client's business, setting materiality thresholds, assessing different risks, preliminary analytical review and understanding the internal control environment. It was concluded that the five dimensions of audit planning have a positive significant relationship with audit quality due to the fact that proper audit planning helps auditors in better audit strategy to accomplish a good quality audit (Ussahawanitchakit, 2012).

Six factors are identified as contributing a better audit quality as follows: technical competence, ethical value, appropriate audit-client relationship, experienced and sceptical judgements, compliance with good working practices, good leadership and good quality control, and monitoring review process (ICAEW, 2002). Zaman and Holm (2012) conclude that investors, professional bodies and audit firms support the definition and factors of audit quality as defined by the Financial Reporting Council (FRC) at the "Audit Quality Forum" (ICAEW, 2002). Regardless of their support, the three groups consider that the FRC response to improve audit quality is insufficient. Audit firms consider that audit committees should play a role in promoting and contributing to better audit quality (Zaman and Holm, 2012).

Financial figures, and not only the six factors of audit quality (ICAEW, 2002), affect audit quality. Sattar et al. (2004) concluded that audit quality is inversely related to the

cost of debt financing. This is due because the duality role external auditors perform in reducing information asymmetry and insurance role are "economically significant to the cost of debt". Imhoff-Jr (2003) conducted a historical review of the history of accounting quality, audit profession and its related challenges and changes in regulations, and the development of corporate governance role in a corporation.

From an audit perspective Imhoff-Jr (2003) presented recommendations to the CPA firms to areas of auditor auditing former auditor, conflict with management, and the possibility of losing part of a portfolio of clients and the adequacy of training. Such recommendations affect audit quality if implemented as stated. He emphasised on auditors' rotation and subsequent problems as a result of such rotation, such as losses in first year of rotation, excessive chargeable hours recorded by auditor that may lead to an increase in audit fees. This study was presented based on previous literature and academic literature and recommendations were raised based on personal perception and opinion. There were no empirical models prepared to validate proposed recommendations. As part of external auditor role, Holm and Birkholm (2007) concluded that communication should be improved between external auditor and audit committees. They focused on areas related to non-audit assignments and if any pressure is exercised on auditors to issue an audit report preferred by company's management if they will be signing or performing non-audit assignment.

Cohen et al. (2007) conducted an academic research and concluded that companies with a weak corporate governance role have a tendency of not showing negative results in earnings. Such companies have the tendency to use poor accrual accounting that may lead to a conflict with external auditors. As a result of potential conflict, the tolerance level for potential misstatements of auditors varies according to different conditions and

to what extent clients are willing to use poor accrual accounting. Abbot et al. (2000) concluded that companies with more independent directors and effective audit committees assign more quality auditors, since more independent directors care more for monetary and reputational losses. Healthier companies, compared with companies having poor financial conditions, are able to have their preferred resolution when facing a conflict with external auditors (Knapp, 1985). This conclusion is due to the fact that when an issue is dealt with no direct reference to technical standards, a company is able to avoid modified or qualified audit opinion.

Along with Abbot et al. (2002), audit committees play an important role in controlling management with the help of external auditors (Rustam et al., 2013). Although audit fees are considered an economic cost to the firm, it is directly related to audit committees' activities and expertise. Effective and expert audit committees contribute to good corporate governance and quality financial reporting. External auditors, accordingly generate better audit quality in relation to the increased demand of audit committee members. Better audit quality is directly related to an increase in audit hours auditors spend on audit-related tasks (Rustam et al., 2013).

A study was conducted to cover the going-concern factor in retaining or dismissing auditors. It relates the auditor's reputation and corporate governance from one side and impact of corporate governance from another side (Uang et al., 2006). It was concluded that the more shareholders play a monitoring role in a company, the less the gap between management and auditors' disclosure, as companies with effective governance mechanisms face less reporting and disclosure conflicts with their external auditors.

2.9 Corporate Governance and Audit Quality: Gaps and Potential Contribution

The Board of Directors, considered as one of governance mechanisms, is responsible for assigning external auditors, approving audit fees, re-assigning external auditors, engaging with external auditors for non-audit assignments, and establishing audit committees to cooperate with external auditors (UK corporate Governance code, 2010). External auditors' reports are addressed to the board of directors (ISA700 UK & Ireland, 2009). Audit committees are made up of a minimum of three members or two members in smaller companies (below FTSE 350). Their main role is to monitor the integrity of the financial reporting process, review and validate control environment design and effectiveness, review external auditors' work, and set up policies when engaging with external auditors to perform non-audit services (UK corporate Governance code, 2010).

The auditor-auditee relationship has been considered crucial in performing audit assignments in areas of risk assessment, audit risk, and business risk (Sahnoun and Zarai, 2009). Besides this technical type of relationship that Sahnoun and Zarai (2009) discussed in their study, this section describes how auditors' behaviour may vary positively or negatively specifically in relation to the main corporate governance principles directly related to external auditors as mentioned above. As part of the auditor-auditee relationship (Sahnoun and Zarai, 2009) auditing is said to be an external corporate governance monitoring mechanism (Jinet et al., 2011). It has been said that auditing banks is more complex than auditing industrial firms. Accordingly, there is an inverse relationship between the type of auditor (Big Four or non-Big Four) and banks facing problems leading to failure and bankruptcy.

Jinet et al. (2011) conclude that banks have lower chances to fail when they are audited by a Big Four auditing firm. It is argued that Big Four audit firms care more for their reputation. They do not become involved in hiding bad and negative disclosures when the results are not to the benefit of their clients. This professional behaviour helps the Big Four auditors to perform better audit assignments with better quality which will lower the chance of banks to go into failure. The risk of making a wrong decision leading to bankruptcy or failure can be mitigated by referring to audited financial statements. Audited financial statements are prepared by external auditors for the sake of helping different stakeholders in investment decisions (Ussahawanitchakit, 2012).

As part of maintaining a quality audit, auditors have to comply with set auditing standards (Generally Accepted Auditing Standards) that include different standards and statements that help in improving audit quality. Ussahawanitchakit (2012) argues that there is a significant positive relationship between audit planning and audit quality. Audit planning is defined to be the preliminary process auditors perform in the planning stage of an audit assignment. In particular, it involves understanding the clients' business, setting materiality thresholds, assessing different risks, preliminary analytical review and understanding the internal control environment. It was concluded that the five dimensions of audit planning have a positive significant relationship with audit quality due to the fact that proper audit planning helps auditors with a better audit strategy to accomplish a good quality audit (Ussahawanitchakit, 2012).

A study was conducted by Lin and Liu (2009) who suggested that all other things being equal, Chinese firms with a higher percentage of shareholder positions held by controlling shareholders, smaller supervisory boards, chairman of the board and Chief Executive Officer (CEO) position being held by the same person, are all factors

affecting the change to a smaller number of auditors and the consequence of this on audit partners' behaviour. A logit regression method was used to analyse the results. They concluded that the poor Corporate Governance (CG) in China plays a significant role in giving shareholders more power to exercise on external auditors where poor levels of CG are associated with lower quality auditors.

The second hypothesis that relates the number of supervisory board members to the choice of smaller auditors was not supported in this study, where no statistical relation was noted. This may be the result of the poor role of Board of Directors as well. Other factors other than the formation of companies that may lead to a change to a lower quality auditor was not discussed. Unlike Lin and Liu (2009), a study was conducted highlighting the financial performance and growth factors to be considered as possible reasons to change external auditors (Abdul Nasser et al., 2006).

The auditor–client relationship in Malaysia has been researched by Abdul Nasser et al. (2006) to discover possible reasons for companies in Malaysia changing from Big Four to non-Big Four audit firms. They posit the nature and size of companies which can be two of many factors to change auditors. They hypothesised that changing from Big Four to non-Big Four audit firms is related to the size, growth, and financial distress of companies. The population of this study consists of listed companies in Malaysia and a logistic regression was used. It was concluded that client size, financial risk and changes in total assets play a significant role in switching to Big Four audit firms. On the other hand, these factors do not play the same role in the tenure of an audit firm. As we can see in the above conclusion, recorded and stated performance evidenced in the financial statements is essential for companies to assign Big Four audit firms. In other words, if a Big Four firm is in the process of renewing its engagement letter for another period of

time, possibly the audited financial statements may (or may not) play a significant role in the negotiation process.

Another study covered companies' choice of auditors before and after the privatisation process. The nature of ownership of privatised companies plays a significant role in assigning an external auditor (Guedhami et al., 2009). This study dealt with the role of state and foreign ownership structures of different companies in assigning high quality auditors. The researchers hypothesise that as state ownership increases and foreign ownership decreases, the likelihood of choosing high quality auditors decreases. The dependent variable is auditor choice, where it was studied before one year and after three years of privatisation to identify the effect of the privatisation factor. Independent variables were ownership structure, different financial information generated from annual reports, and control privatisation. The sample of this research was made up of 176 privatised companies selected from 21 emerging markets. To analyse the relationship between dependant and independent variables, the researchers used univariate and multivariate logistic regression to theoretically link between auditor choice and type of company's structure.

Along with the results of Abdul Naser et al. (2006) who concluded that client size, financial risk and changes in total assets play a significant role in switching to Big Four audit firms, the results of this study are divided mainly into two sections: evidence before and after privatisation. It was concluded from evidence before privatisation that there is a negative relation between state ownership and Big Four auditor choice and a positive relation between foreign ownership and choosing Big Four auditors. For the evidence after privatisation, it was concluded that foreign ownership plays a significant role in pushing to assign Big Four audit firms. Also there is a high tendency to assign

Big Four auditors when government relinquishes part of its ownership, mainly above 50 per cent. In general, the results supported the pre-set hypothesis that related ownership structure, government and foreign ownership to the choice of auditors with a tendency to assign a high quality auditor when government ownership is minimal and foreign ownership is dominant (Guedhami et al., 2009). It can be noted from the conclusion that state owned companies tend to assign non-Big Four auditors. In other words, the researchers tried to mention indirectly that state owned companies tend to present poor, biased and misleading financial statements; and for this reason, they hire low-quality auditors. It can be noted in the second hypothesis that governments may sell more than 50 per cent of their ownership which may not go along with their intention to present poor financial statements and dominate companies.

Besides the privatisation factor studied by Guedhami et al. (2009), type and nature of ownership were also studied to relate between auditor's choice and structure of companies. This study covered areas related to audit committee characteristics and their impact in auditor's selection (Abbot et al., 2000). Unlike Chinese companies that tend to hire low-quality auditors when having weak corporate governance (Lin and Liu, 2009), the researchers hypothesised that there is a significant positive relationship between effectiveness of audit committees and choosing a specialised, high-quality auditor.

The Dependant variable was defined to be auditor selection process that was measured by auditor market share. The independent variable was defined to be audit committee characteristics. Monitoring, frequent meetings, outsiders members and presence of managers in the audit committee were set to be explanatory variables to be able to proxy audit committee characteristics. Companies comprising the sample of this study were selected from listed companies on the New York Stock Exchange (NYSE), American

Stock Exchange (AMEX) or National Association of Securities Dealers Automated Quotation (NASDAQ) during 1994. The researchers used univariate analysis and logistic regression to define industry specialist and auditor choice by companies; and they used Ordinary Least Square (OLS) to measure specialisation by auditors. The result of this study supported the pre-set hypothesis. There is a positive relationship between audit committee effectiveness and independence and choosing an industry-specialist auditor. Hence, the results are sensitive to the definition of effective and independent members of an audit committee. The study lacks a proper measurement to define an industry-specialist auditor since it relied only on auditor's share in a certain segment of industry to be defined as a specialist. It also contradicts the conclusion reached by Piot and Janin (2007) who considered the existence rather than the independence of an audit committee plays a significant role in company's performance and consequently the proposed conclusion by Abbot et al. (2000) regarding the choice of external auditors.

Delivering many services other than audit assignments by audit firms is also considered another factor affecting auditor behaviour (Knapp, 1985). Knapp hypothesised that financial statement users will perceive that a company's management will obtain their preferred resolution when there is a conflict with external auditors. The conditions when management have more power than external auditors is when an issue is not dealt with precisely by technical standards, the financial position of the audited company, the existence of Management Advisory Services (MAS), an audit assignment, or finally the level of competition where the company operates.

Seventy senior commercial loan officers in the US were randomly selected to participate in the study and responses were measured on a seven-point Likert scale. The results

supported the first and second hypotheses that healthier companies, compared with companies being in a poor financial condition, are able to have their preferred resolution when facing a conflict with external auditors. This result applies also to the hypothesis related to conflict resolution, when it is not stated clearly in technical standards. The researchers concluded that the level of awareness of financial statement users is continuously increasing and consequently the audit firm's credibility is being damaged (Knapp, 1985).

The numbers of years where auditors were assigned was researched as another factor auditors face when resisting management pressure. The aspect of the relationship between external auditor and shareholders was studied relating auditor tenure to the voting of shareholders (Dao et al., 2008). Only one hypothesis was covered in this study that assumed there is no relationship between auditor tenure and the votes of shareholders against auditor re-appointment. The dependent variable for this article was the log of total assets, proportion of shares held by officers directors, proportion of shares held by a block-holder (i.e. a shareholder owning more than 5% of the shares), duality role of CEO and chairman, return on assets, common stock return, ration of non-audit fees to audit fees, the auditor is Big Four or not, and number of years auditor was assigned.

The population of this study was made up of 2,084 US companies for the year ended 31 December 2005, and it was only restricted to companies having a fiscal year ending 31 December. The researchers used multiple regression models to analyse the sample tested. The results showed that larger companies' shareholders tended to vote against auditor ratification when the auditor had been assigned for a long period. This result about audit tenure seems to be applicable in the US market, where Piot and Janin (2007)

concluded that auditor tenure is not considered a significant factor in the auditor-auditee relationship.

The corporate governance role, and specifically internal auditor role, is gaining more advantage against the role of the external auditor (Holm and Birkholm, 2007). No empirical methods were conducted in this study but rather an interpretive framework and data collected by referring to many articles and journals. The researchers highlighted the difference in roles between external auditors who are considered agents for shareholders and stakeholders, and internal auditors who are considered agents of the day-to-day management team. They concluded that internal control mechanisms, as a result of promulgations, have extended the role of the control system and gained a supervisory role. In addition to this the audit committee should be independent from management besides the evolving role of internal auditors who are now involved in risk assessment and evaluating internal control systems. Hence, we should mention a critical point regarding this conclusion that International Standards of Auditing (ISA 610) and Statements of Auditing Standards (SAS 500) have allowed external auditors to rely on internal audit work where applicable and under certain defined conditions.

Besides the role of corporate governance and its different principles and bodies that are gaining power against the role of external auditors (Holm and Birkholm, 2007), a research was conducted to relate between audit fees also to the level of financial and accounting expertise of audit committee members and different factors that may play a significant role in assessing auditors' behaviour (Krishnan and Visvanathan, 2009). The two hypotheses for this study were defined as the association of audit fees to the level of financial expertise, and relating the above to the ratio of receivables and inventories in a balance sheet. To analyse the relation between the dependent variable, 'Audit fees' and

the independent variable 'Audit committee expertise', accounting financial experts were defined as directors with experience as a certified public accountant, auditor, principal or chief financial officer, controller, or principal or chief accounting officer, the proportion of audit committee directors who qualify as accounting financial experts to the total number of directors in the audit committee. Non-accounting financial experts are directors with experience as the chief executive officer or president of a for-profit corporation.

Audit committee expertise is measured by the portion of accounting/financial members to total audit committee members and also through the portion of members who qualify at either accounting or financial expertise level. The researchers selected a sample of companies listed in Standard and Poor 500 (S&P 500) that were audited by big five (four) audit firms only and linear regression was used to analyse the results. Krishnan and Visavanathan (2009) concluded, consistent with their expectations, that audit fees for big clients are higher than small and middle enterprise clients, but firms having losses also have high audit fees due to the high audit risk tolerated by the auditor. Also, one may assume that an active audit committee may lead to lower audit fees, but findings showed the opposite since active committee members require more effort from auditors and subsequently higher audit fees. One major finding revealed that not having a duality role between the CEO and chairman position may lead to less poor performance of a company's activities, and consequently to lower audit fees. Nevertheless, it was clearly supported that audit committee members with financial/accounting expertise lead to lower audit fees (Krishnan and Visavanathan, 2009).

For the second hypothesis, the results showed that lower audit fees are associated with accounting expertise of audit committee members as a single factor, but when this is related to a big portion of inventory and accounts receivable, the risk of earnings management would overcome the expertise factor leading to higher audit fees. The level of independence of board and committee members had no effect on pricing and audit assignment. In conclusion, the researchers managed to highlight that audit fees are not only linked to the expertise factor, but this should be accompanied by an effective company's structure and corporate governance. The level of independence variable that was found to have no effect in pricing an audit assignment has been proven, along with audit committee effectiveness, to play a significant role in assigning an industry specialist auditor (Abbot et al., 2000)

Cohen et al., (2007) also analysed the effect of board role in the planning stage of an audit assignment when defining risks. Different hypotheses were set out for this study relating between performance of companies' boards in areas of dependence role and agency role to auditors' nature of testing. The independent variables were the level of agency role and the dependency role of boards; whereas the dependent variable was the change in auditor's risk assessment and nature of testing. The population of this study consisted of auditors employed at Big Four audit firms in the US. Auditors were given a case study about a high-tech company and information was provided on the inventory cycle. They were asked to assess inherent and control risks. A regression analysis was used to analyse the results after designing a two-by-two fully-crossed factorial experimental design.

The results support the hypothesis that auditors tend to lower the level of testing when there is an effective role of corporate governance and this was also applied to the

control and inherent risk level. This finding is not surprising since as per International Standards of Auditing (ISA 610), auditors are highly recommended to adjust initial assessment of risks when there is evidence of a healthy control environment. Auditors in such an environment decrease control risk and subsequently their substantive testing. Contrary to ISA, reliance on internal audit work may lead to a better position for the internal audit function and gain advantage over the external auditors' role (Holm and Birkolm, 2007).

Some studies have been published calling for a change in the Corporate Governance formation and role following the Enron crisis. One of these studies dealt with the relationship between external auditors and the board of directors (Abdel-Khalik, 2002). This study was conducted based on personal perception of the different role of corporate governance. The main purpose of this study was to suggest possible solutions for auditor independence. The role of auditors as agent to the management was highlighted, while in fact academic personnel teach students that auditors are a "*watchdogs*" for shareholders. The study referred to these terms because in fieldwork, auditors are in a relationship with management on a daily basis during the audit assignment, while they are only compensated and selected by the board of directors. The author also indicated that auditor independence may be impaired if any auditor is chosen to perform any additional consultancy services. To mitigate such potential impaired independence, Abdel-Khalik(2002) suggested the establishment of a Shareholder Board of Trustees (SBT).

The role of this board is to decide, select, and compensate the chosen auditors. Its members will be selected by shareholders but with no proxy vote, and no overlapping members between Board of Directors (BoD) and SBT. Again the researcher in this

study, tried to create more committees assuming that more committees and more gap between external auditors and shareholder/BoD would minimise the level of impairment in independence but without considering other factors affecting auditors' independence. Since members of the SBT will be assigned by shareholders who assign or elect the board of directors, it is believed this suggestion needs to be more thoroughly studied.

Along with Abdel-Khalik's (2002) article of changing the role of corporate governance, an article relying on academic literature was issued to study the relationship and impact of auditor communication with corporate governance principles, board of directors and audit committees (Cohen et al., 2007). The researchers focused on the impact of such communication between auditor on one side and the board of directors and audit committees on the other, and its collision over the financial reporting process, internal controls and control environment.

A list of Discussion Questions (DQ) was raised to analyse the timeliness of required auditor communication and the style of compliance with accounting standards (aggressive/conservative). The study hypothesised that clients' management may use accrual accounting to distort financial performance. As a result of this academic research and its related literature review, the researchers concluded that companies with a weak corporate governance role have a tendency not to show negative results in earnings and have a tendency to use poor accrual accounting. In such scenarios conflict with external auditors takes place and the tolerance level for potential misstatements of auditors varies according to different cases and to what extent clients are willing to use poor accrual accounting. They also highlighted the area of external auditors' reliance on internal auditors' work. This reliance should be supported by a proper communication

with the audit committee regarding the performance and quality of internal audit work and tasks.

Auditors should mention to audit committee members the reason of their reliance or not on internal auditors' work and in which areas they relied on their work, if any. This shows the combined efforts between external and internal auditors, unlike Holm and Birkholm's (2007) conclusion about role conflict between internal and external auditors. The study also concluded that communication should be improved between external auditor and audit committees in areas related to non-audit assignments and if any pressure is exercised on auditors to issue an audit report preferred by company's management, if they will be signing or performing a non-audit assignment. This conclusion aligns with Knapp's (1985) conclusion regarding conflict resolution between auditors and management.

Whereas previous articles relied on previous literature and academic data to study the impact of the corporate governance role and its impact on the auditor's role (Cohen et al., 2007; Abdel Khalik, 2002), another review of previous research and literature was conducted to propose personal points of view of how things should be done to improve the financial reporting process (Imhoff-Jr, 2003). Imhoff-Jr (2003) reviewed the history of accounting quality, audit profession and its related challenges and changes in regulations, and the development of corporate governance role in a corporation. The author started the study by a review of past literature of the role of the corporate board and the establishment of the audit committee during the twentieth century. It was indicated that one of its main tasks was to separate and at the same time relate between independent auditors and management.

From an audit perspective, the researcher presented recommendations to the CPA firms to areas of the auditor auditing the former auditor, conflict with management and the possibility of losing part of a portfolio of clients, and the adequacy of training. He also emphasised auditors' rotation and subsequent problems as a result of such rotation, such as losses in the first year of rotation, excessive chargeable hours recorded by an auditor that may lead to an increase in audit fees. He suggested that given the state of technology in auditing and assurance services, training the proper personnel assigned to difference assignments, in addition to the guidance provided by Generally Accepted Auditing Standards "GAAS", may help in reducing auditor rotation costs. This study was presented based on previous literature and academic literature and recommendations were raised based on personal perception and opinion. There were no empirical models prepared to validate proposed recommendations (Imhoff-Jr, 2003).

In contrary to the above research that mainly focused on previous literature and a personal point of view regarding the mechanism of corporate governance, a review of the corporate governance role when planning an audit assignment has been conducted to assess this role based on research questions and not on previous research (Cohen et al., 2002). This study was based on a set of research questions addressed to partners, managers, and seniors in the form of interviews. The sample was selected from Big five (four) audit firms and one local firm in the US.

The research questions, which have been asked of the audit personnel, cover areas related to the perception of corporate governance by auditors, and if an auditor takes into consideration the role of corporate governance when planning an audit assignment, and if this role varies between clients. The second set of research questions were related to the importance of an audit committee in a corporate governance mechanism and

auditor's point of view about the expected change in the corporate governance role in the future.

One initial disclosure of the conducted interviews shows a contradiction with the agency theory. Where agency theory focuses on the role of the board of directors and audit committee serving at an independent supervisory level between management and shareholders, the responses show that the auditors believe that management sets the tone of corporate governance. It was also revealed that managers' and partners' levels were more involved in assessing the corporate governance factor when planning an audit assignment, since seniors were considered as a 'gatherers' (Cohen et al., 2002).

It was viewed that corporate governance is more important in multinational rather domestic companies due to the fact of more regulations and credibility against the public. Going back to the contradiction with agency theory concept, interviews also showed that one principle of corporate governance code, which is the audit committee, was considered less important compared to the importance of top management. It was clearly concluded that the majority of respondents indicated a growing role for corporate governance, in addition to their recommendation for the corporate governance, to play a major role in companies to avoid any potential weaknesses.

The relation between auditor dismissals when issuing a going-concern report was discussed to link between auditors' behaviour and companies' structure (Carcello and Neal, 2003). The researchers studied the relationship between audit committee characteristics and dismissal of an external auditor after issuing a going-concern audit report. They hypothesised a positive relationship between the existence of affiliated directors on the audit committee, and the ownership of stock options by audit committee members, and the likelihood of dismissing an auditor after a going-concern report.

On the other hand, they hypothesised a negative relationship between the directorship positions held by audit committee members and the level of financial expertise held by the same members to the dismissal of external auditors after issuing going-concern reports. The study was conducted on 174 companies, who received a going-concern report.

The relation between audit committee characteristics and auditor dismissals was analysed by using logit analysis. The result of this study revealed a strong relationship between the percentage of affiliated directors in audit committees, and auditors being dismissed subsequent to issuing a going-concern report. As audit committees comprise more affiliated directors, there is a higher likelihood of auditors being dismissed, and this has been demonstrated more in recent years of the study as the population was made of a sample of companies between 1988 and 1999. Audit committee members who have more governance expertise are less likely to dismiss an auditor subsequent to issuing a going-concern report. It was noted that the financial expertise variable was found to have no effect on auditors' dismissals.

A study was conducted to cover the going-concern factor in retaining or dismissing auditors. It relates the auditor's reputation and corporate governance from one side and impact of corporate governance from another side (Uang et al., 2006). The hypothesis of this study was about the effect of going-concern disclosures between auditor-recommended disclosures and management's actual disclosure, taking into consideration the financial performance of a company. To analyse the relationship of management, going-concern disclosures and the impact of auditors and management, researchers defined many independent variables to assess the dependent variable: management going-concern disclosure. The first independent variable is auditor

characteristics. It is measured by: auditor rank, ratio of audit fee to total auditor revenue, ratio of auditor fees to client's total income, ratio of non-audit fees, and if the auditor has changed from previous years.

For the second independent variable, corporate governance structure, this was measured by: the duality role of a CEO, board size, ratio of non-executive board members, presence of an audit committee, percentage of equity held by directors at balance sheet date, percentage of equity held by institutional shareholders, CEO tenure, and company's leverage by calculating total debt to total assets

Measuring going-concern disclosure was performed in two ways. First, content analysis through assessing the content of management going-concern disclosed and second, if a director's statement had included a Cadbury explanatory paragraph.

The sample of this study was made up of one hundred and seventy-nine non-financial companies listed on the London Stock Exchange and regression models were used to analyse results.

It was also concluded that there is a serious agency problem when management is pushed to report bad information related to going-concern disclosures. The more stakeholder and shareholder play a monitoring role in a company, the less the gap between management and auditors' disclosure. Also, the more reputation an audit has, the less going-concern reporting conflicts with management. But we can refer here to the audit expectancy gap and the different debates between clients and external auditors to specify properly the role of external auditors. They are not considered as "watchdogs" as Abdel-Khalik (2002) mentioned in criticising previous literature, and another possible suggestion to avoid conflicts between management is to minimise the

expectancy gap and the management's perception of the external auditors' role (Iskander, 2008).

Auditors' role in addition to their potential corporate governance role was studied to relate between the levels of corporate governance mechanisms' performance and the choice of companies to hire and assign Big Four audit firms (Fan and Wong, 2005). They hypothesised that companies' decision to assign Big Four audit firms is directly related to the agency theory problems embedded in their ownership structure and the companies' demands for equity capital. In addition, they related audit fees to weak corporate governance structure. Mechanisms of corporate governance in East Asia, such as a board of directors, is mainly concentrated on a limited number of directors leading to weak corporate governance performance and subsequently to higher audit fees. It was concluded that companies with greater agency problems with high control concentration tend to hire Big Four auditors. It was also evident that Big Four firms charge higher audit fees where there is a controlling-owners and minority-shareholder conflict. The above conclusion justifies why auditors charge high audit fees for certain assignments. Auditors might be enforced to perform another role besides their main assignment to cover up serious weaknesses in corporate governance mechanisms. This conclusion leads to another factor of the continuous debate in auditor-auditee relationship. But it has also been shown in other studies that having effective audit committee members may lead to an increase in audit fees due to the fact that active members also require more time to be incurred by auditors (Krishnan and Visvanathan, 2009).

Another set of research questions was defined to enquire into directors' and auditors' perception about the role of external auditors (Goodwin and Seow, 2002). Their survey covered auditors and companies' directors in Singapore to relate between

corporate governance mechanisms and the ability of external auditors to perform an effective audit and to resist management pressure against the expertise of an audit committee, internal audit function and the existence of a code of conduct in sampled companies. They defined two research questions that covered the area related to the ability of external auditors to detect fraud and dispute existence in a management resistance scenario if there is an audit partner rotation and if the same auditor is auditing other entities with the group. The internal audit function rather than the audit committee was revealed to be the most significant variable in auditors' ability to resist management pressure. Detecting errors, control weakness, and fraud is directly related to whether the auditor is auditing other entities of the group. Respondents' results showed that partner rotation is not considered a significant factor in fraud and the control-weakness-detection process. More detailed information was mentioned about different perceptions between directors and auditors. For example, directors considered an audit committee to be more important than an internal audit function (Goodwin and Seow, 2002).

It can be noted that there is a wide gap between auditors' and directors' perceptions. Auditors perceive that they should audit the whole group of companies to increase the probability of fraud and control weakness-detection; while directors perceive that a code of conduct is a significant factor in auditors resisting pressure and detecting fraud. This may also lead to higher audit fees if a company is willing to increase the probability of detecting fraud and controlling weaknesses, which is related to the fact that external auditor should be auditing all entities of the group, as per auditors' replies.

The relationship between audit fees, corporate governance and accrual choices (Larcker and Richardson, 2004) was studied to analyse the amount of audit fees and non-audit

fees to the accrual measurement. The dependent variable is auditors' independence while independent variables are the ratio of audit and non-audit fees to total fees and the ratio of client's fees to total revenue of the audit firm. The sample study comprises 355 observations from clients audited by big five (four), Grant Thornton and BDO Seidman audit firms only. It was concluded that there is a positive relationship between unexpected accruals and audit fees but only when fees are measured based on the ratio of non-audit fees to total revenue of the audit firm. The second hypothesis relates earnings quality to auditor independence and clients' characteristics. It was concluded that there is a negative relationship between auditor independence and earnings quality for companies having weak corporate governance performance. This result reflects that companies with high insider holders and low institutional holders has a relatively weak corporate governance performance, allowing companies to exercise some pressure on auditors, through non-audit assignment fees, to avoid huge accruals.

Zaman et al. (2011) state that the wider audit scope, the higher audit quality. It is argued in this study that complex organisations and bigger ones, with the existence of expert audit committee members, tend to hire auditors more for non-audit services. The sample tested covers a period between 2001 to 2004. A composite measure of audit committee variables is used and board of directors' characteristics are included as control variables. It is concluded that there is a positive significant relationship between audit committee independence, audit committee meetings, and audit committee size while audit committee expertise is found to have no impact on audit fees. But when the composite measure of audit committees is used, it is found that active audit committees have a positive significant impact on audit fees. What is meant by active audit committees is audit committees meeting minimum three times a year, all members are independent, at least one audit committee member possess financial expertise, and minimum three

directors should be comprising the audit committee. The main objective of this study is to analyse auditors' remuneration rather than focusing on audit quality.

O'sullivan (2000) states that non-executive board of directors is positively significant with audit fees. Role duality and block holders are said to have no impact on audit fees. The main objective of this study is to analyse factors that may affect audit fees. The sample tested relates to data collected from annual reports between 1992-1994. Audit committees' characteristics are excluded from this study plus the Big Four audit firms during that period were named as Big-Six as follows: Arthur Andersen, Coopers and Lybrand, Deloitte and Touche, Ernst and Young, KPMG and Price Waterhouse. A change in audit quality might exist after the merge of Coopers and Lybrand and Price Waterhouse, the collapse of Arthur Andersen, and the issuance of many regulations since that period.

Another research related to the concept of audit quality is conducted by Basiruddin (2011). This study links the levels of audit quality to the level of earnings management. Three proxies are used to measure audit quality as follows: audit fees, non-audit fees, and industry specialist auditors. Non-audit fee is used in other studies as a proxy of auditors' independence (Wines, 1994; Knapp, 1985) rather than a proxy for audit quality. Industry specialist can be a biased proxy of audit quality (Cahan et al., 2007; Kwon et al., 2007). The sample of this study is comprised of non-financial companies listed at the FTSE 350 for a period between 2005-2008. It is concluded that that independent boards require more services from auditors other than regular recurring audit assignments. Also, specialised auditors are found to reduce manipulated earnings management.

Audit fee is not only used as a proxy for audit quality but also to measure the monitoring function of boards of directors (Desender et al., 2013). The sample of this study comprises of listed companies at Madrid Stock Exchange and Paris Stock Exchange with the exclusion of financial companies. The results show that board of directors' independence and audit fees move in the same direction but only when ownership is dispersed but not when concentrated. This is additional evidence that the role of external auditors is used as a tool as a monitoring tool by shareholders to control management (IASSB, 2013) to manage the relationship between principals and agents within the agency theory framework (Bromwich, 1992).

2.10 Conclusion

The first group of studies analyses auditors' behaviour against factors embedded at audit firms and different scenarios auditors may face during their employment at audit firms. This group of studies covers mainly senior and audit staff levels' behaviour only; who are employed at Big Four and non-Big Four audit firms.

Corporate governance studies are classified into many groups. One group of studies explains corporate governance mechanisms and their effect on corporations' performance and the relationship between agency cost to be non-compliant with corporate governance code. Another group defines the role of external auditors. The last group of studies covers the area of corporate governance characteristics and its relationship with audit quality and type of auditors to be assigned.

The methods used in the previous studies varied depending on the nature of each study. Some studies used the questionnaire technique to analyse auditors' feedback against a set of questions. Other researchers conducted interviews with different audit levels and analysed their replies. Reviewing previous literature through an interpretative

framework was also used in studies that avoided the questionnaire and interview methods. As for studies related to corporate governance, most of these studies used the data-collection method, secondary data, by using different applications and data hubs for sampled companies.

Previous studies analysed audit-related issues, other than audit quality, with respect to corporate governance principles and mechanisms selected in the study. Audit fees have been used in different studies with relation to non-audit fees and audit committees' structure (Zaman et al., 2011), to earnings management (Basiruddin, 2011), to the level of auditors' independence in comparison to total auditors' remuneration (Wines, 1994), to accrual accounting treatments (Larcker and Richardson, 2004), and a measure for board of directors monitoring level (Desender et al., 2013).

This research specifically analyses the dynamics of audit quality from behavioural approach and companies' corporate governance characteristics, mainly those characteristics which interact with external auditors' tasks and nature of work. Clients' corporate governance characteristics are obtained from non-financial companies listed in the FTSE 350.

The principal-agent relationship (agency theory) mentioned in the theoretical foundation section will be explained in detail in the next chapter. Also, stakeholders' theory, legitimacy theory and coping behaviour theory are explained in detail in the next chapter, with a justification for including/not including each theory and their relationship to the core of this research.

Chapter Three
Theoretical Framework

Chapter Three - Theoretical Framework

3.1 Introduction

The theoretical foundation of this research focuses on the impact of audit firm embedded factors on auditors' behaviour and how such possible dysfunctional behaviour may affect audit quality. It also focuses on 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.

The theory concept 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. A theory will not guide us on what to do, when and where to do things or to act, but it will help us to eliminate countless options from consideration when we are in a situation to choose or to decide between different alternatives (Chambers, 1996).

Different studies have focused on the determinants of audit fees in relation to corporate governance. It is said that external auditors are assigned by Boards of Directors (BoD) to solve the information asymmetry problem between shareholders (principal) and management (agent). Limited studies have used audit fees, among other proxies, as a signalling tool to measure audit quality. Audit quality plays a significant role in the decision-making process. This decision could be made by investors, creditors, bankers and many other stakeholders. The level of audit quality is also found to play a significant role in reducing the agency conflict from one side and to improve clients' and audit firms' credibility and reputation from another side by issuing a good quality audited financial statements. It is worth mentioning here that not all audited financial

statements have the same quality audit. When it is referred to quality in auditing, it is not necessarily that the audit is improper or incorrect when financial statements are audited with less quality.

It is argued in this research that corporate governance mechanisms, mainly board of directors, audit committees, and ownership concentration play a significant role in the quality of audited financial statements that are prepared by management. Preparation of financial statements is the sole responsibility of management where the role of external auditors is to give their opinion on the financial statements. Auditors perform audit procedures according to International Standards of Auditing (ISA), Generally Accepted Auditing Standards (GAAS) or any other defined auditing principles. Financial statements are normally prepared in accordance with International Financial Reporting Standards (IFRS) or Generally Accepted Accounting Principles (GAAP) (Ussahawanitchakit, 2012).

What determines audit quality is corporate governance mechanisms as argued in this research. Internal factors could be the qualifications and competences of auditors performing the audit assignment. The research argues that the less dysfunctional behaviour is committed when facing time budget pressure, time deadline pressure and performance evaluation the better audit quality will be.

3.2 Theory and Accounting – An overview

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" p.23. This definition is very close to the US definition of theory where the Financial Accounting Standards Board (FASB, 1976) states that theory is a "coherent system of interrelated objectives and fundamentals that can lead to consistent standards". The use

of the word "coherent" can be noted in both definitions. It is implied that the concept of theory should be coherent with human behaviour to provide guidance and explanation about a certain phenomenon (Deegan and Unerman, 2011).

Theory is not considered just a simple 'hunch' and it is a not 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).

As for accounting theories, some are considered inductive and others are labelled as prescriptive ones. The inductive theory can be based on empirical evidence, where predictions are made about likely occurrences. In other words, a theory is generated and supported later by a number of observations. The other types of accounting theories have a prescriptive concept. They help to predict about what should be done in certain events (Deegan and Unerman, 2011).

Due to the fact that accounting can only be performed with the existence of an 'accountant', accounting is considered to be a human activity. As a result of this human nature of accounting, individuals' behaviour is needed to be part of the financial accounting theories (Deegan and Unerman, 2011).

The descriptive or positive theory will be 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 (Deegan and Unerman, 2011).

Watts and Zimmerman (1986) are considered two pioneers who excelled on positive accounting theory. The theory focuses on the relationship between different personnel in an organisation, in particular, how accounting is being used to develop the relationship

between different individuals. This relationship can be between top management and staff, shareholders and management, and many other potential “principals” and "agents". The kind of relationship between individuals and shareholders is referred to as agency relationship and will be covered in the next section. Accounting information is used as a tool for decision-making leading to different consequences. Loss consequences may lead to hiding some information by agents that will create information asymmetry and agency cost.

Watts and Zimmerman (1986) developed the positive accounting theory but certain human matters are not included in the development of positive accounting theory. Such human matters are loyalty and morality. Loyalty and morality are ignored due to the fact that individuals are driven by self-interest and they will act by default towards more wealth. This self-interest factor will align with the interest of shareholders (principals) to lead to an organisation's better performance. On the assumption that individuals are driven by self-interest, it is expected that organisations will establish 'alignment mechanisms' to achieve principal and agent objectives at the same time.

3.2.1 Agency Theory

Agency theory may be used as a supplement to cover the gap in having a comprehensive accounting theory. Agency theory is said to be a frame for the relationship between a principle and an agent via a contract (Jensen and Meckling, 1976). Shareholders (principals) delegate tasks to be performed by management (agents). Tasks cover mainly operating the organisation on behalf of shareholders to meet their objectives. Agency theory is also considered to be a contract between shareholders (principals) and external auditors to control the work of other agents (management).

Auditors play a role in the agency relationship between shareholders and management. From one side they are considered agents assigned by the board of directors and also exercise an intermediary role between shareholders and management to validate financial statements prepared by management (Bromwich, 1992).

Some researchers have argued that agency theory is structured to minimise the cost of hiring more agents. Normally, principals hire agents to work on their behalf for their benefit. But due to the fact that organisations are structured to reduce agency cost, principals prefer to work with each other within the organisation rather in the market (Donaldson and Preston, 1995).

Managerial integrity and managerial competency are two types of failures that may restrict agents to behave in alignment with principals' objectives/interests. Managerial integrity is related to managers' behaviour that has a negative consequence on the appropriation of organisations' assets. Managerial competencies are related to hiding some information as a result of control deficiencies (Moldoveanu and Martin, 2001).

3.2.1.1 Agency Cost

Different costs arise as a result of separating ownership and management between principals and agents. Different agency costs can be summarised by monitoring costs, bonding costs, and residual loss (Jensen and Meckling, 1976).

3.2.1.1.1 Monitoring Cost

Monitoring costs are said to be the costs paid by principals to monitor the performance and stewardship skills of agents (Fama and Jensen, 1983). This process involves certain level of competencies and expertise to monitor management performance. Moreover, it

involves incentives by principals to pay this cost and to provide credible response on management control style (Denis et al., 2007).

On the other hand, it is argued that excessive monitoring costs would limit managerial initiatives (Burka et al., 1997). Some researchers have criticised parts of the Cadbury report (1992) about the heavy monitoring cost. Heavy monitoring cost may prevent managerial entrepreneurship. Donaldson (1988) argues that organisations' structure would facilitate effective action by management. The selected corporate governance characteristics play a significant role in the agency-monitoring cost and stewardship of management. It is argued that there is a positive impact on organisations with a small board of directors' size when role duality exists.

Role duality is when the chief executive officer and chairman roles are performed by one individual. As a result of a small BoD size and role duality, the decision-making process is facilitated easily towards a good stewardship role. But on the other hand, this ease of decision making, due to certain corporate governance characteristics, may harm shareholders' interest as is considered to be working to the benefit of agents rather than principals. A balance between monitoring costs and the stewardship role should be in place to achieve and maintain organisation performance (Donaldson and Davis, 1991).

3.2.1.1.2 Bonding Cost

Bonding cost is highly interrelated with monitoring cost. Bonding cost reduces the monitoring cost and for this reason managers tend to accept bonding cost more (McColgan, 2001). Agents might not satisfy shareholders' interest, so a maximum bonding cost is incurred to meet shareholders' interest. Hence, no optimal bonding contract is available to meet highest levels of shareholders' interest (Denis, 2001).

The bonding cost is said to be agents' rewards and compensation in return for meeting principals' interest. The full set of financial statement inclusive of detailed disclosures is prepared by management. It is the sole responsibility of management to prepare a full set of financial statements in addition to a disclosures section to confirm that their stewardship is meeting shareholders' interest. In other words, managers are bonding themselves to prepare the financial statements. The cost of management binding themselves is referred to as binding cost in positive accounting theory (Deegan and Unerman, 2011).

3.2.1.1.3 Residual Loss

Residual loss or agency loss is the result of having monitoring cost and bonding cost. It is the failure of an agent to meet shareholders' interest in respect to monitoring agents' performance. As a result of the imbalance between bonding cost and monitoring cost, residual loss exists and the agent's contract is not perfectly accomplished (McColgan, 2001).

3.2.1.2 Agency Conflict

Different problematic factors arise as a result of the conflict between principals and agents. Such conflict can be summarised by moral hazard agency conflict, earning retention agency conflict, time horizon agency conflict and managerial risk agency conflict (McColgan, 2001).

3.2.1.2.1 Moral Hazard Agency Conflict

Higher monitoring cost is associated with corporate size. The bigger companies are the more complex their transactions, which may lead to difficulties in monitoring and subsequently higher monitoring cost (Jensen, 1993). As a result of the high monitoring

costs, moral hazard problems and conflicts take place between managers and stakeholders' interest. Managers may spend more time on compliance and private perquisites rather than spending time on investment plans and strategies to increase an organisations' value. Such behaviour is perceived by managers as protecting their stake in the organisation, since if organisations expand, their stake decreases (Jensen and Meckling, 1976).

3.2.1.2.2 Earnings Retention Agency Conflict

In a shareholder-agent relationship, two different types of compensations exist. While managers receive better compensation if they perform well and contribute more to organisations' growth, shareholders on the other hand receive dividends (Jensen, 1993).

As a result of the different type of compensations, earning retention conflict takes place. Corporation size is considered to be a major factor in managers' compensation that may lead to more focus on size growth from managers' side. Shareholders prefer to have better results in the return to shareholders' growth rather than size growth (Brennan, 1995). It is said that shareholders prefer cash dividends while managers prefer to have growth in an organisation's size to receive better remuneration (Jensen, 1993).

3.2.1.2.3 Time Horizon Agency Conflict

McColgan (2001) argues between the status of a shareholder and an agent within an organisation. Shareholders normally have a long-term relationship in organisations while managers have a relatively short-term one. Due to this fact, cash flow timing conflicts exists. Managers are more concerned about short-term cash flow activities to have cash available for their compensation packages and rewards. Shareholders, on the other hand, are more concerned with long-term cash flow activities that will

consequently provide more dividend figures. This time-horizon conflict affects the strategic plans of a company in general, and research and development expenditure in particular.

It is concluded that there is a negative relationship between research and development expenditures and top managers approaching retirement age. Shareholders show more interest in research and development expenditure, as it will potentially generate more dividends, while managers are more concerned in short-term cash flow activities (Dechow and Sloan, 1991).

3.2.1.2.4 Managerial Risk Aversion Agency Conflict

Managers' status is highly dependent on organisations' performance. Shareholders do not have the same level of dependency on organisations' performance as they can be doing business and owning shares in a certain organisation in the same time. Risks affecting organisations are avoided by managers who tend to minimise organisations' stock risk and avoid decisions that can have an impact on the organisation's going concern (Denis, 2001).

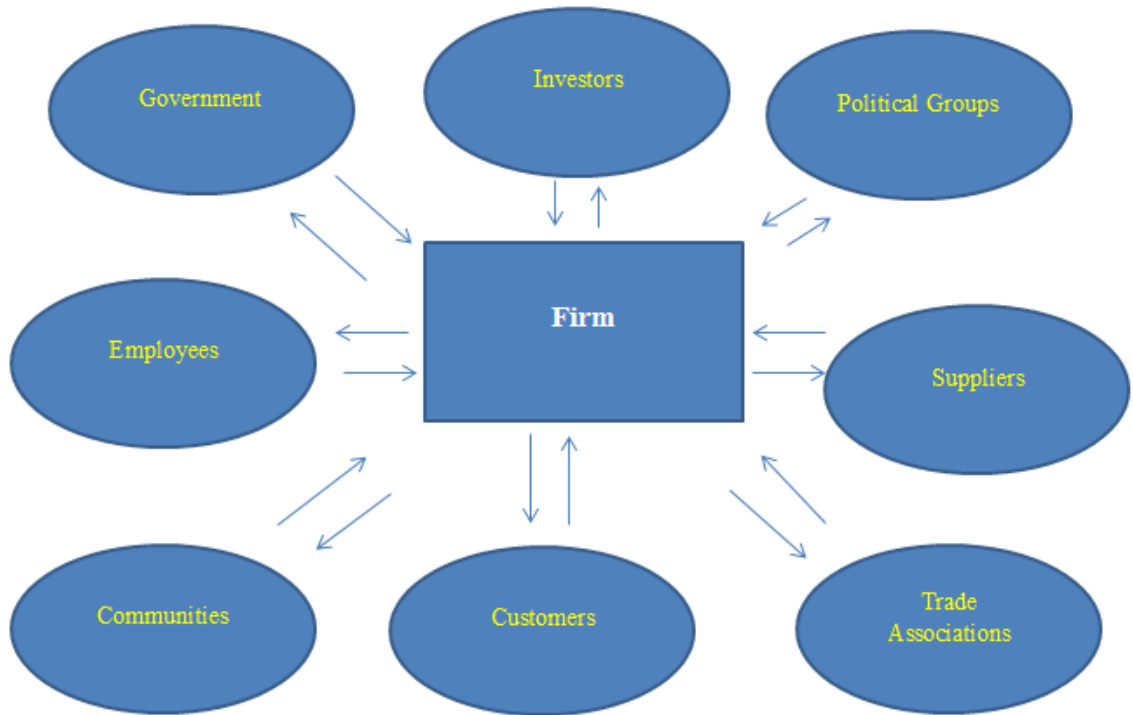
Since the role of external auditors is considered an important factor in the classic agency problem between shareholders and management (Habib and Bhuiyan, 2011), the agency theory is used to theoretically link between corporate governance mechanisms and audit quality and its related determinant(s).

3.2.2 Stakeholder Theory

Stakeholder theory explains the relationship between organisations and their external environment (Freeman, 1984). Stakeholders represent the big umbrella for all individuals and parties that may have interest in an organisation. Stakeholders can be

bankers, suppliers, creditors, government bodies, and political groups as mentioned in Figure 3.1

Figure 3.1 Stakeholder Model



Donaldson, T, and Preston L. (1995)

A stakeholder is defined as a human agency that can have an impact or affect organisations (Gray et al., 1996). Due to this role of stockholders, organisations 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-organisations relationship. Stakeholders concept is involved in the development of strategic planning performance measures (Atkinson et al., 1997).

The going concern and lifetime of organisations is highly related to the support of stakeholders and their approval of organisations' activities (Gray et al., 1995). Ansoff (1965) argues that the stakeholder-organisation relationship is not limited to

organisations' activities and strategic plans but also to the organisations' behaviour and the potential impact of such behaviour on stakeholders.

Although organisations may have a huge number of potential stakeholders as mentioned in Table 3.1, no priority should be given to any stakeholder at the expense of another stakeholder (Donaldson and Preston, 1995).

The stakeholder theory has been used in massive previous literature and research studies. The use of the stakeholder theory is not limited to a single type of research. It has been used in different methodologies, various types of evidence and various techniques for appraisal. The main three approaches for the stakeholder theory concept are the normative approach, the instrumental approach, and the descriptive approach (Freeman, 1984).

The normative approach is said to be the core of the stakeholder theory. It focuses on the individual or group of individuals' rights, social contract and social responsibility (Donaldson and Preston 1995). The second core is said to be instrumental approach that involves prediction about certain practices and obtaining results at a later stage. This approach focuses on relating corporate performance to stakeholders. The third core is about the descriptive approach which explains and analyses observations and observations' relationships with the external world. In other words, the descriptive approach focuses on relating the observed reality with theory concepts.

The existence of three different approaches for the stakeholders theory: normative, instrumental, and descriptive approach, have played a significant role in the development and the advancement of the stakeholder theory. The three approaches are embedded with different evidence and implications (Donaldson and Preston, 1995).

In addition to the three different approaches, the stakeholder theory involves moral and philosophical guidance (Donaldson and Preston, 1995). Wijnberg (2000) states that companies should serve the interest of stakeholders solely. Management is responsible to disclose all kind of information. Mainly, this kind of information is related to the moral and normative (ethical) part of the stakeholder theory and the kind of information for the interest of powerful stakeholders. The ethical part of the stakeholder theory states that all stakeholders have the right to receive full disclosures and information regardless if such information meets their interest or not. Management should be treating all levels of stakeholders the same and to have a balanced relationship and work for an optimal balance among different stakeholders (Hasnas, 1998). It is implied that businesses sometimes sacrifice the interest of certain stakeholders to benefit others. It is worth mentioning that the normative form of a stakeholder theory does not assume a social responsibility by businesses.

The other kind of information is the one that is revealed only to powerful stakeholders, governmental or political ones. Gray et al. (1996) and Deegan (2000) argue that some information might be critical to have the approval for it by powerful stakeholders or disapproval of others. As a result, managers would have an interest in disclosing partial information to all stakeholders and critical information to powerful stakeholders to meet their expectations (Deegan and Unerman, 2011).

Clarkson (1995) classifies stakeholders into two groups: primary and secondary shareholders. The existence of primary shareholders is essential for corporations' survival. The secondary stakeholders are less essential but their actions can severely damage or benefit organisations.

The stakeholder theory concept is achieved by establishing non-financial measures (Logsdon and Lewelly, 1997). The stakeholder theory plays a guidance role for corporations and organisations. The main assumption in this theory is that all kinds of stakeholders should receive moral consideration (Donaldson and Preston, 1995). On the other hand, Atkinson et al. (1997) argue that stakeholder theory is a model for measuring corporate performance. The measurement of corporate performance will help in assessing stakeholders' expectations and contributions. Atkinson et al. (1997) also mention that contractual relationships with stakeholders are achieved by taking into consideration different processes used to achieve organisations' objectives.

It was concluded that the way organisations deal with multiple stakeholders is affected by the stakeholders' relationship network structure (Rowley, 1997). One of the main advantages of the stakeholder theory is its use as a tool to manage various stakeholders relationships and conflicts, since there is no concentration to meet the interest of individual stakeholders only (Freeman, 1984).

Rowley (1997) mentions two structural factors that frame the interaction between organisations and related stakeholders. The first kind of interaction is the one that is associated with the density of "stockholders' network". This type of interaction determines the degree of interrelationship between an organisation and its stakeholders. The second type of interaction is the one that measures the organisation's status between its stakeholders and their network.

If an organisation is located in the centre of different stakeholders' network, information exchange is achieved with more ease and formation of shared behavioural expectations are affected (Rowley, 1997). Also, Mintzberg (1983) states that the higher the density network, the more information is shared among stakeholders within the network and

communication will be more effective. On the other hand, the less dense the network, shared behavioural networks exist but with constraints. Oliver (1991) supports the previous arguments by stating that the higher density network, the better stakeholders can interact with each other.

The stakeholder theory does not only address the relationship between organisations and stakeholders but also with organisations' external environment. Stakeholders are considered factors that may affect the resources of the organisations. But in the same time, stakeholders themselves are affected by organisations' resources such as economical, technological, social, managerial, and political factors (Freeman, 1984).

The above social and ethical factors are disclosed mainly to maintain the relationship between an organisation and its related stakeholders to gain their approval and to retain their stake (Gray et al., 1996).

Organisational environment is established by stakeholders. The managerial factor plays an essential role in the stakeholder-organisation relationship. Wolfe and Putler (2002) conclude that an organisation might not have a homogeneous group of stakeholders. Different stakeholders may exist with different objectives. Some stakeholders might be looking for a voting power to affect certain actions; others might contribute to the organisations' performance. Not only non-homogenous groups of stakeholders may exist but also the stakeholder theory addresses the possibility of a heterogeneous group of stakeholders' existence and the high chance of conflict taking place (Wolfe and Putler, 2002).

The resolution of such conflict highlights the level of power group stakeholder possessed in an organisation environment (Miles, 2002). Robert (1992) states that the

main objective of an organisation, from a stakeholder theory approach, is to balance between stakeholders' demands and conflicts.

Although the stakeholder theory explains the relationship between the organisations and different stakeholders, it is not being used neither when assessing the relationship between auditors' behaviour and audit firm factors nor between audit quality and companies' governance mechanisms. Audit firms may have different stakeholders but the study will be analysing only one stakeholder who is the 'auditors' and how they behave against different types of pressure they face. In other words, the study assesses the principal (audit firm) agent (auditors) relationship rather than applying the stakeholders theory.

3.2.3 Legitimacy Theory

The term 'legitimacy' is defined as a general perception that actions of entities are considered appropriate and desirable if they fall within a frame of values and beliefs (Suchmankj, 1995). Society provides corporations with legal standing to hire individuals as a use of natural resources. In other words, there is a contract between members of the society and corporations. The society would allow organisations to benefit from resources if the benefits exceed the cost (Mathews, 1993).

Accounting theory identified different users of accounting information such as shareholders, creditors and other possible stakeholders (Gray, 1995). Different groups of an organisation represent its source of power and subsequently a company cannot survive without the ability to distribute benefits to its groups (Shocker and Sethi, 1973). Some researchers argue that a company cannot survive unless it matches with the society it operates (Dowling and Pfeffer, 1975). There is a kind of social agreement between companies and the society where they operate. Explicit clauses take the form of

legal requirements and implicit clauses take the form of legislated social expectation (Gray et al., 1996).

Audit firms, through issuing audit financial statements, are considered a primary source of information for investors and decision makers (Habib and Bhuiyan, 2011). The level of audit quality and the consequences of auditors' behaviour have potential implications on a society. Due to the fact that the two aspects of accountancy (audit quality and auditors' behaviour) are not studied from a legislative perspective, but rather from a principal-agent concept, the legitimacy theory is not heavily studied in the theoretical framework of this study.

3.2.4 Signalling Theory

Two theories have characterised the accounting literature recently: the agency theory and the signalling theory. While agency theory is about the principal-agent relationship, it has been used to explain the theoretical accounting choices and appointment of external auditors. 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 labour 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 Four accountancy 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 Four audit firms to audit their financial statements. Due to this fact that companies and organisations (buyers) are willing to pay more to Big Four audit firms (sellers); audit fees are said to be a signalling factor for a better audit quality.

3.2.5 Institutional Theory

The concept of institutionalisation is related to organisations' actions over time. Such actions are said to be legitimated within an organisation and environment (Pfeffer, 1982). Different factors play role in deriving organisations' behaviour from a legitimate behavioural point of view. Some factors are industry common practices, organisations' history, cultural values, management philosophy and folklore (Eisenhardt, 1988). Majority of institutional literature focuses on organisations' processes and structures within accepted norms (DiMaggio and Powell, 1983).

The choice made by individuals is constrained by the role of habit and history. In other words, it is constrained by the "force of moral pressures and the cake of custom" in strengthening the social order. 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).

Individuals and organisations' actions are explained by the institutional theory concept. Although institutions push for a change and to shape potential changes within their environment context; but organisations' character change over time. Functional pressure, political pressure and social sources are three possible factors that cause pressure on institutional common practices (Oliver, 1991). Institutional change can take place on a very micro level to the most macro and global level. In other words, this change can be very brief or a prolonged one over decades and centuries.

Scott (1987) states that the structure of organisations is considered to be an adaptive vehicle. The purpose of this vehicle is to shape the coherence between participants' characteristics and commitments from one side and external environment constraints and influences from the other side. The main question asked in this context is "what is the nature and origin of social order? ". The answer is related to the interaction between human constructions that are embedded in social interaction. Some agents, found in institutional sector, are powerful enough to impose structural forms and practices.

Organisational structure sometimes is affected by institutional environment. "Cultural controls can substitute for structural controls". When cultural beliefs are effectively spread within an organisation, it is not necessary to have those practices coded officially and formally within organisations' structure (Scott, 1987).

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 organisations within a social environment. Auditors' behaviour is assessed in relation to audit firm professional practices rather than social and political factors. The relationship between auditors and their management is framed

by the principal-agent (agency theory) relationship. Their behaviour is analysed against different kind of pressures that are embedded within an audit firm rather than factors and sources found within an institutional context. Auditors (agents) are expected to serve principals' interest by complying with set deadlines and budgets. Agency conflict and agency cost may arise as a result of potential dysfunctional behaviour exercised by auditors.

3.2.6 Coping Behaviour Theory

In a work environment, internal and external demands exist. It depends on the behaviour of every individual on how to cope with different demands based on a person's resources. This is referred to as "Coping Behaviour Theory" (Folkman, 1984). There are two categories of coping behaviour: problem solving oriented and emotion oriented. The problem-solving category is related to those who use additional resources and reorganising time schedules. The emotion-oriented category relates to individuals who involve positive thinking and determination when facing stress. The application of the two types of core behaviour helps in alleviating stress that will consequently improve job performance and lead to a better performance evaluation.

At a moderate level of stress, problem-solving oriented category dominates the problem-solving category. At a higher stress level, emotion-oriented category dominates the problem-solving one (Folkman, 1984). The main purpose of the study is to highlight audit firms' embedded factors that may push auditors to commit dysfunctional behaviour which will affect audit quality. The survey includes technical questions related to an audit assignment scope. There will be no assessment of behavioural perspectives of auditors but indicators of a dysfunctional behaviour in relation to technical audit matters.

3.3 Corporate Governance, Auditing and Theoretical Approach

Corporate governance is said to be a set of mechanisms that control and monitor top management activities and decisions on behalf of companies' stakeholders (Donnelly and Mulcahy, 2008). Corporate governance is defined as a system that controls and directs companies to give an accountable image to shareholders and stakeholders (Tylecote and Ramirez, 2006). The term "corporate governance" existed before the 1990s. It is used along with the "fair trade" and "free competition" to achieve universal respect (Keasey et al., 2005). As a result of creative accounting drivers, different financial failures, agency cost and problems between management and shareholders, the role of auditors, all these factors led to the formation of the first UK corporate governance committee known by the Cadbury committee in 1991. The committee published the Cadbury report in 1992. The main recommendations of the Cadbury report were directions towards areas of control and accountability and disclosures related to boards of directors and other committees. Before the Cadbury report was introduced, companies were free to disclose their board of directors and directors' independence status.

The main objective of corporate governance mechanisms is to separate ownership from control using agency theory (John and Senbet, 1998). There is a direct relationship between firms' value, external financial needs, investment opportunities and product market competition with governance mechanisms (Chen et al., 2010). The results showed that besides the importance of corporate governance on a firm's value, external forces such as the financial needs and market opportunities are also related to corporate governance mechanisms.

Dey (2008) conducted a study on the relationship between corporate governance and agency conflicts. It was hypothesised that the level of agency conflict is higher in larger, more complex and management control companies. The results supported the hypothesis indicating a positive relationship between corporate governance mechanisms and agency conflict. It was concluded that companies facing high agency problems have good corporate governance mechanisms, mainly independence and effectiveness of the Board of Directors (BoD) and audit committee, measured by the percentage of outside directors and frequency of meetings. Dey (2008) mentioned that due to competitive pressure on capital, goods, and labour markets, companies facing high agency problems have good corporate governance mechanisms. Through empirical research, he mentioned that this result supports the theory on corporate governance that describes governance mechanisms to be a mirror or endogenous output of every company's business and economic environment. This conclusion indicates that "no size fits all" when it comes to apply different mechanisms of corporate governance best practices. Dey (2008) mentioned that this result supports the theory on corporate governance that describes governance mechanisms to be a mirror or endogenous output of every company's business and economic environment.

Bentham (1907) stated, cited in Harrison (1983), that as accounting is the soul of justice, audit can be presented as a substitute for democracy (Power, 1994). Audit serves as an intermediary between a principal and an agent. The rising problems of accountability are widely solved by presentation of social arrangement reinforced by the audit process. Audit is mainly presenting different administrative problems along with their solution. The auditees having such problems are not required to implement the auditors' solution since the auditor plays the role of "adding-value" to auditee parties. It can be noted here the similarity between the concept of UK corporate governance code

and the conceptual framework of auditing. Both have the tone of recommendations rather than of requirement and obligatory mode (Power, 1994).

Audit is not limited to issuing audited financial statements. There is a growing frequency of using the word “audit” in the UK as environmental audits, value for money audits, management audits, quality audits, forensic audits, data audits, intellectual property audits, medical audits and many others besides. The audit practice evolution in the UK is due to different problematic controls, mainly regulatory failures, invisibility of the audit, and the construction of auditees (McColgan, 2001).

Saam (2007) stated that in agency theory, the principal exercises more power than agents when facing agency problems. But in a hidden information situation, where management is exposed more to operations, the agent has more privilege than the principal. In such a hidden information situation, audit quality may be affected due to the flow of accurate information and data they may receive to support their work before submitting their reports to boards of directors and consequently to shareholders. In an agency relationship, a principal is expected to increase the agent’s efforts by more monitoring, but heavy monitoring can have some hidden costs affecting interpersonal relationship and reducing social distance (Dickinson and Villeval, 2008). Due to the nature of the auditing profession which is based on interaction with companies’ management and personnel, reducing social distance affects the scope and quality of audit.

Since shareholders elect the board of directors who are responsible to assign external auditors (UK corporate governance code, 2010), dividends paid to shareholders are considered a tool to satisfy agency problems and conflicts (Adjaoud and Ben-amar, 2010). There is an agency conflict between management and audit committee chairs

(Haka and Chalos, 1990). This agency conflict is evidenced where internal and external auditors align themselves with management, highlighting the issue of auditors' independence. Moreover, more agency cost through heavy monitoring (Dickinson and Villeval, 2008) may lead to a variance in audit quality.

The theoretical framework between governance mechanisms and audit quality is labelled by the agency theory. Shareholders, through the election of a board of directors, establish an external layer of control over management by assigning external auditors. Management has incentives for a better quality audit that reflects transparency and more reliable financial statements and explanatory disclosures which reduce information asymmetry problems. This reflects that management practices align and serve shareholders' interest which minimise agency conflict cost.

There is a focus on behaviour, moral and values in managing corporations from a stakeholders theoretical point of view. Stakeholders are affected by corporations' goals achievements (Freeman, 1984). Donaldson and Preston (1995) argued that stakeholder theory requires attributes, structure and practices to establish a philosophical management framework. Stakeholder theory establishes a framework to explain the relationship between audit firm practices (time deadline, time budget, performance evaluations) and auditors' behaviour, considered as a major group of stakeholders. The more these measures are accepted by auditors and align with their interest, the more an audit firm can meet its objectives and goals by proper compliance of said measures and practices. Consequently, less dysfunctional behaviour may exist.

3.4 Conclusion

As explained in different sections of the theory chapter, different theories frame the auditing practice in general and auditors' behaviour and audit quality in particular.

The agency theory is used to manage the relationship between a principal (shareholder) and an agent (management). It is said that an improper balance in this relationship may lead to an increase in agency cost. Audit fees are considered one type of agency cost (Habib and Bhuiyan, 2011) and external auditors are also said to be an external corporate governance mechanism that is used to minimise the agency conflict between management and shareholders. Agency costs are summarised by monitoring cost, bonding cost, and residual loss. Moreover, misbalanced relationship between a principal and an agent leads to different conflicts, from agency theory perspective, as managerial hazard agency conflict, earnings-retention agency conflict, time-horizon agency conflict and managerial-risk-aversion conflict. As a result of the above agency cost, agency conflicts and potential information asymmetry, external auditors are considered a tool to solve these issues.

Companies assign external auditors, especially Big Four audit firms, to have credible financial statements that are audited by a credible accountancy firm (Ussahawanitchakit, 2012). Although external auditors are assigned by the board of directors, their daily communication is with organisations' management (Abdel-Khalik, 2002).

Conflict between shareholders and management is expected to be solved through auditors. The better the audit quality, the more conflicts are expected to be solved. The signalling theory, in addition to the agency theory and the stakeholder-agency theory, is introduced into this study to label the theoretical approach of audit quality and auditors' behaviour. Companies (buyers) are willing to pay more for an audit service which is perceived to be performed by a credible high-quality audit firm (seller). The more audit fees are paid, the more signals are perceived showing that financial statements are audited with better quality.

Although the stakeholder theory governs the relationship between an organisation and its external environment, but due to the fact that only one stakeholder (employees "auditors") is studied against management (audit firm) factors; the concept of principal-agent arises again and subsequently framing this research by the agency theory.

It is also said the going concern of an organisation is highly related with the support of stakeholders. The life of an audit firm is also highly related by the behaviour of its auditors. It was evidenced through the famous Enron scandal where we witnessed severe dysfunctional behaviour by auditors that led to the collapse of the giant Arthur Andersen.

Auditors' behaviour and audit quality are the main variables that are studied in this research. Auditors' behaviour is analysed to highlight internal factors affecting it in addition to companies' characteristics that may affect audit quality. Exploring the determinants of auditors' behaviour, the second model analyses audit quality. The second model is included to complement the first model. Previous studies have used different proxies for audit quality, but rare ones have used the audit fees proxy supported by the theoretical and technical argument.

The theoretical framework supported mainly by the agency relationship complements with the Hypothetico–Deductive applied in this research. The use of external auditors, considered to be an external corporate governance mechanism, will be analysed against other different components of organisations. Participants of the second study are sent a survey with the expectation of objective answers to be received.

Ontological objectivism and epistemological positivist approaches are selected to align with the theoretical framework used and to link between different components. The

methodology plays a linkage role between the two empirical studies and harmonises the relationship between them. Components of the studies and detailed selected methodological approaches are explained in the next chapter (research design).

Chapter Four

Research Design

Chapter Four - Research Design

4.1 Introduction

The basis of the current research is to analyse the determinants of auditors' behaviour and audit quality. This research is conducted on the UK market. The first empirical model covers auditors' behaviour employed in UK audit firms. A survey has been conducted in collaboration with the Big Four audit firms in the UK: Deloitte, EY, KPMG, and PwC. The second model sampled a population made up of non-financial listed companies in the Financial Times Stock Exchange (FTSE 350) for a longitudinal time frame between 2007 to 2010.

The main objective of this chapter is to highlight the methodology used. Many types of methodologies are discussed but the selected methodology is justified and supported based on the two empirical models' analysis and findings in addition to the theoretical framework of this research.

Ontological and epistemological approaches are explained and justified for the selected approach to align with the theoretical framework used and to link between different components. The methodology plays a linkage role between the two empirical studies and harmonises the relationship between them.

The first model is trying to identify factors leading to dysfunctional behaviour. Time budget, time deadline and performance evaluation factors are selected to be independent variables against the dependent variable: auditors' behaviour. The research is trying to link between accountancy firms' embedded factors that may play a role in committing dysfunctional behaviour and consequently may harm audit quality. Moreover, the first study also highlights the perception differences between audit

trainees and experienced auditors. A questionnaire technique is used for this model to assess auditors' behaviour.

The second empirical study complements with the first study. Selected corporate governance variables are defined and used as determinants and signalling indicators of audit quality. The concept of audit quality has been a controversial issue in recent years. As a result of many scandals, the major question has been always asked "where were the auditors?" Relevant data from 908 annual reports was manually collected. The data includes financial and non-financial information of the 908 non-financial listed companies on the FTSE 350. To control for this empirical model, companies' size, profitability, leverage, and companies' line of service are included as control variables.

4.2 Research Philosophy

Crotty (1998) mentions the following statement "justification of our choice and particular use of methodology and methods are something that reach into the assumption about reality that we bring to our work". Different theoretical concepts and methodological tools can be used in a research, but the key point is to justify and tailor selected techniques and methods to related research.

Different research layers and ranges are used to examine the theoretical perspectives. Ontological and epistemological layers are broad lines for philosophical approach with different methodological techniques.

Saunders (2003) identifies five layers referred to "onion" layers. Research philosophy is the first layer, research approach is the second layer, research strategy is the third layer, research time horizon is the fourth layer and data collection method is the fifth layer. Different alternatives are available in each layer. It is the researcher's role to choose

among different options within each layer and to tailor the “onion” approach to the designated research.

Ruddock (2001) states that to be able to conduct a research; researchers should be aware of the theory knowledge and the theoretical concepts that are embedded in a research. The knowledge about the theoretical suppositions is referred to as epistemology, while the theory of knowledge is referred to as ontology. In more detail, ontology helps researchers to understand the nature of reality. Analysing data collected, observation reached and surveys conducted depends on the level of understanding of the ontological and epistemological nature of our work. It is critical to decide on the research philosophy approach that may fit with a research. Blaikie (2002) describes ontology as “claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how the units interact with each other. In short, ontological assumptions are concerned with what we believe constitutes a social reality” (p.27).

Marsh and Stoker (2002) argue that the ontological position of a research helps in identifying the nature of the investigated social and political reality; the theory of being. Objectivism (realism) and subjectivism (constructionism) are said to be two parts of the ontological position (Burrell and Morgan, 1994). Bryman (2001) defines objectivism as “ontological position implies that social phenomena confront us as external facts that are beyond our reach of influence” (p.16). Subjectivism is defined as “social phenomena and their meanings are continually being accomplished by their social acts. It implies that social phenomena and categories are not only produced through social interaction but that they are in a constant state of revision” (Bryman 2001, p.18).

An objectivism approach argues that organisations are considered to be a group of social entities. These social entities comprise an organisation which has a tangible reality and in specific, objective reality. On the other hand, a subjectivism approach argues that reality is not objective and due to this fact, research objectives constructions should take place taking into consideration the ontological position (Bryman, 2001, p.16).

The main difference between subjectivism and objectivism is that objectivists believe that a firm is embedded from inception by an objectivism approach. Subjectivists, on the other hand, believe that subjectivism is a continuous process by organisations as a result of social enactment (Smircich, 1983).

Along with the objectivism and subjectivism approaches of ontology, positivism and interpretivism are said to be the two main positions of epistemology (Marsh and Stoker, 2002). Epistemology assumes that everything that can exist can be known. In particular epistemology is defined as “the possible ways of gaining knowledge of social reality, whatever it is understood to be. In short, claims about what is assumed to exist can be known” (Blaikie, 2000). The OED (2004) states that epistemology is “a theory or science of the methods or ground of knowledge”. As a result of the above definitions, epistemological position is considered to be the theory of knowledge. Through this theory or using this theory, a world can be seen.

Generating hypotheses is an objective of the positivism position of epistemology. Research and researchers are responsible to test and develop those theories (Bryman and Bell, 2007). Swartz et al. (1998) define positivism as “working with observable social reality and that the end product of such research can be law-like generalisation similar to those produced by the physical and natural scientists” (p.32). Generating hypotheses

is accomplished by employing structured methodology (Gill and Johnson, 2002). One of the critical assumptions of the positivism approach is that a researcher plays no role in affecting a collected data and research subject (Swartz, 1998). A hypothesis is developed, data is collected, measured and analysed. As a result of the previous steps, a hypothesis is either accepted or rejected. Hypotheses examination helps in developing the examined theory (Saunders et al., 2009).

The second epistemological position is interpretivism. Swartz et al. (1998) defines interpretivism as “the details of the situation to understand the reality or perhaps a reality working behind them”. Generalisation is not considered as a crucial factor by an interpretivist. Researchers applying the interpretivism approach tend to understand the research subject from the subjects’ point of view. Researchers use the sympathetic position using the epistemological interpretivism (Saunders et al., 2009).

Moving to the second layer of the “onion”, a research approach is introduced (Saunders et al., 2009). The research approach is classified in two main categories: deductive (testing) and inductive (building theory). Generally, the deductive approach is widely used in research. Researchers normally tend to test subjects in a population. The population is usually framed by a law that allows researchers to interpret and elaborate, to develop the phenomena as mentioned previously and allow prediction (Hussey and Hussey, 1997).

There are five consecutive stages for a research with a deductive approach. The first stage is to develop a hypothesis. A hypothesis is a theoretical argument to test the relationship between subjects. The second stage is presenting the hypothesis in technical terms. In other words, explanation on how variables are measured and a decision about the coefficient/direction of each variable takes place. The third stage covers testing the

selected hypotheses. Testing a hypothesis can be done via empirical research, inquiry or any other kind of testing techniques. The fourth stage is about examining the output in stage three. The results of testing the hypotheses are analysed and assessed to confirm or identify any need for theory modification. The last and fifth stage of the deductive research is modifying the theory as a result of tests conducted in stage four.

Gill and Robson (2002) support the above explanation of deductive research. A deductive research is initiated to identify a relationship between variables which is then followed by hypotheses development. Subsequently qualitative and/or quantitative research and data collection are performed. Testing hypotheses is conducted with the support of a structured methodology.

The inductive approach is considered to be the other type of research along with deductive approach. This approach works almost the opposite of how the deductive approach works. Inductive approach is initiated by data collection, then analysis of the collected data which leads to formulating a theory. Researchers may end up with the same theory or can induct a theory from the results. In inductive approach, the theory is the output of hypotheses testing (Saunders et al., 2009).

This research is based mainly on the agency theory. The agency theory is said to be one of the important segments of the positive accounting research. The normative theory has been replaced by the positive accounting theory since the 1970s (Gaffikin, 2007). The positive accounting theory is also referred to as a “neo-empirical” research. It is mainly about the use of empirical evidence based on an established theory (Peirson and Brown, 1992).

The positive accounting theory applies to an objective (realist) position. Consequently, ontological neo-empirical adopts the objective position. The human agency and human

involvement are the fundamentals of an objective assumption embedded in the positive accounting theory. Human beings normally do not create reality; rather human beings live around reality. In this concept, human beings behave passively not actively. Human behaviours are tested objectively and results are used to predict and to respond to the real world (Gaffikin, 2005).

Gill and Johnson (1991) mention that a researcher has no role in any subject-object relationship and consequently in the results observed. The dualism between a subject and an object should be separated to reach a proper observation (Keat and Urry, 2011). The positivist epistemology is based on this dualism concept. The methodological approach is directly affected by the ontological and epistemological positions. If results are accepted, then the results can be used as a law-like generalisation (Gill and Johnson, 1991).

The hypothetico-deductive methodology is considered to be a suitable approach as a result of the explained objectivist ontological position and positive epistemology. This kind of approach starts with developing the hypotheses after critically reviewing previous literature, and then testing the hypotheses for results and conclusions to support or to reject the set hypotheses (Saunders et al., 2009).

The process of accepting or rejecting a theory is accomplished through a set of stages. The positivist epistemology is concerned with the observed phenomena and the hypothetico-deductive theory testing. The data collection process is considered to be a blind process without the existence of a developed hypothesis. If the output and the results from testing the data collected match with the defined theory, then a theory is accepted, or otherwise rejected (Keat and Urry, 2011).

Choosing between quantitative and qualitative testing techniques is based on certain factors. Quantitative research is based on objectivity which is essential for this kind of research. On the other hand, qualitative research is considered to be subjective rather than objective. Subjectivity is inclusive within the qualitative research. As a result, the quantitative research approach is applied in this research based on the objective ontological position (Marsh and Stoker, 2002; Ruddock, 2001) in addition to the use of agency theory.

Since the objective ontology is applied, selected variables are used as complementary for the quantitative research approach. The variables are considered the main core of the quantitative research technique. Hypotheses are developed on the potential relationship and coefficients among variables. Variables are considered as real world objects that will objectively establish a causal relationship. The results will help to support or to reject the theory and a potential outcome can be generalised. It is very critical here in this approach that researcher has no impact on all data collected to maintain objectivity (Gaffikin, 2005).

Among different techniques that can be used in the quantitative research, the survey technique is appropriate for these types of studies. Surveys are said to give a general view of what individuals think or report using the descriptive explanatory research (Newman and Sansing, 1997). Yin (2003) states that the survey technique helps to answer the “what, how many, how much” questions. The deductive approach is usually associated with the survey technique of quantitative research (Saunders et al., 2009). The benefit of using a survey technique is the assumption that it is strictly positivistic with answering the “how many, how much” questions (Swartz et al., 1998). Another advantage of using the survey technique is that it allows the data collected from

an economical context to be controlled during the research process (Saunders et al., 2009). Explanatory surveys are said to test a theory using the experiment logic (Gill and Johnson, 2002).

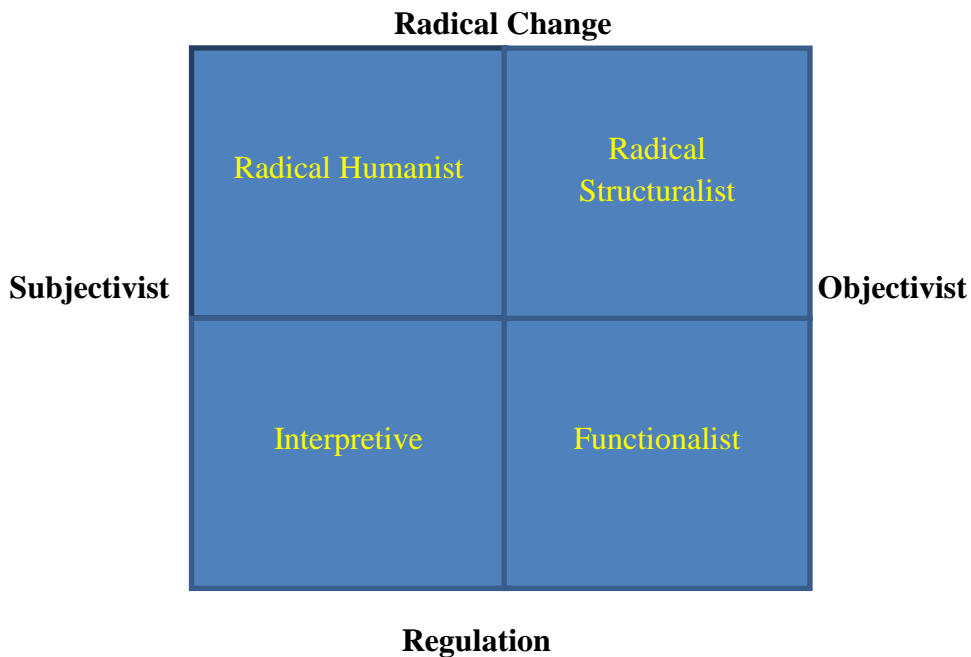
Along explaining different methodological approaches and research positions, objective ontology and positive epistemology are used in this research. The positive accounting theory is adopted for this neo-empirical research. Along with the positive accounting theory, the stakeholder/agency theories are framing the theoretical approach of the research. Hypotheses are developed and tested that justify compliance with the hypothetico-deductive methodological approach (Saunders et al., 2009).

As a result of the selected approach, quantitative rather than qualitative research is considered to be appropriate for an objectivist ontological position that will help in examining the developed hypotheses. Technically, the survey method is followed to gather and collect data for the two empirical models. The data is collected through a primary source by circulating questionnaires to objects, and a secondary source through manual collection of financial and non-financial information from companies' annual reports.

4.3 Research Paradigm

The process of understanding and explanations can be gained from examining a social phenomena is called "Paradigm" (Saunders et al., 2003). Ontological and epistemological positions are the basis of a research paradigm. There are four paradigms illustrated by Burrell and Morgan (1994) as follows:

Figure 4.1 - Four Paradigms for the Analysis of Social Science



Developed from Burrell and Morgan (1994, p.23)

The above figure shows the four paradigms illustrated by Burrell and Morgan (1994): functionalist, interpretive, radical humanist, and radical structuralist. They are arranged in a way related to four dimensions: radical change, regulation, subjectivist, and objectivist. The subjectivism and objectivism have been explained thoroughly in the research philosophy section. In particular, they related to the ontological research position. While radical change is critical, regulatory perspective is less judgemental. Radical change elaborates and explains organisational problems from the point of view of an existing state of affairs. Regulations explain the concept of why we have regulations and how such regulations can be improved and developed over time.

The four paradigms assist researchers to clarify research assumptions related to the nature and the society. Also, they offer a useful tool to help researchers how to approach and manager their work. Moreover, the four paradigms help researchers to scheme the research route and to where their research may lead.

Radical humanist paradigm is classified within the radical change and subjectivist dimensions. The ontological position fits with the state of subjectivist. Burrell and Morgan (1994) mention that radical humanist dimension is a state “to articulate ways in which humans can transcend the spiritual bonds and fetters which tie them into existing social patterns and thus realise their full potential” (p.23).

The radical structuralist paradigm is the status when researchers are interested to approach the research with a fundamental change view based on analysing organisational phenomena (Saunders et al., 2009).

Burrell and Morgan (1994) mention that the interpretive paradigm refers to “everyday life is accorded the status of miraculous achievement”. This dimension is more into explaining and understanding what is going on rather than achieving changes.

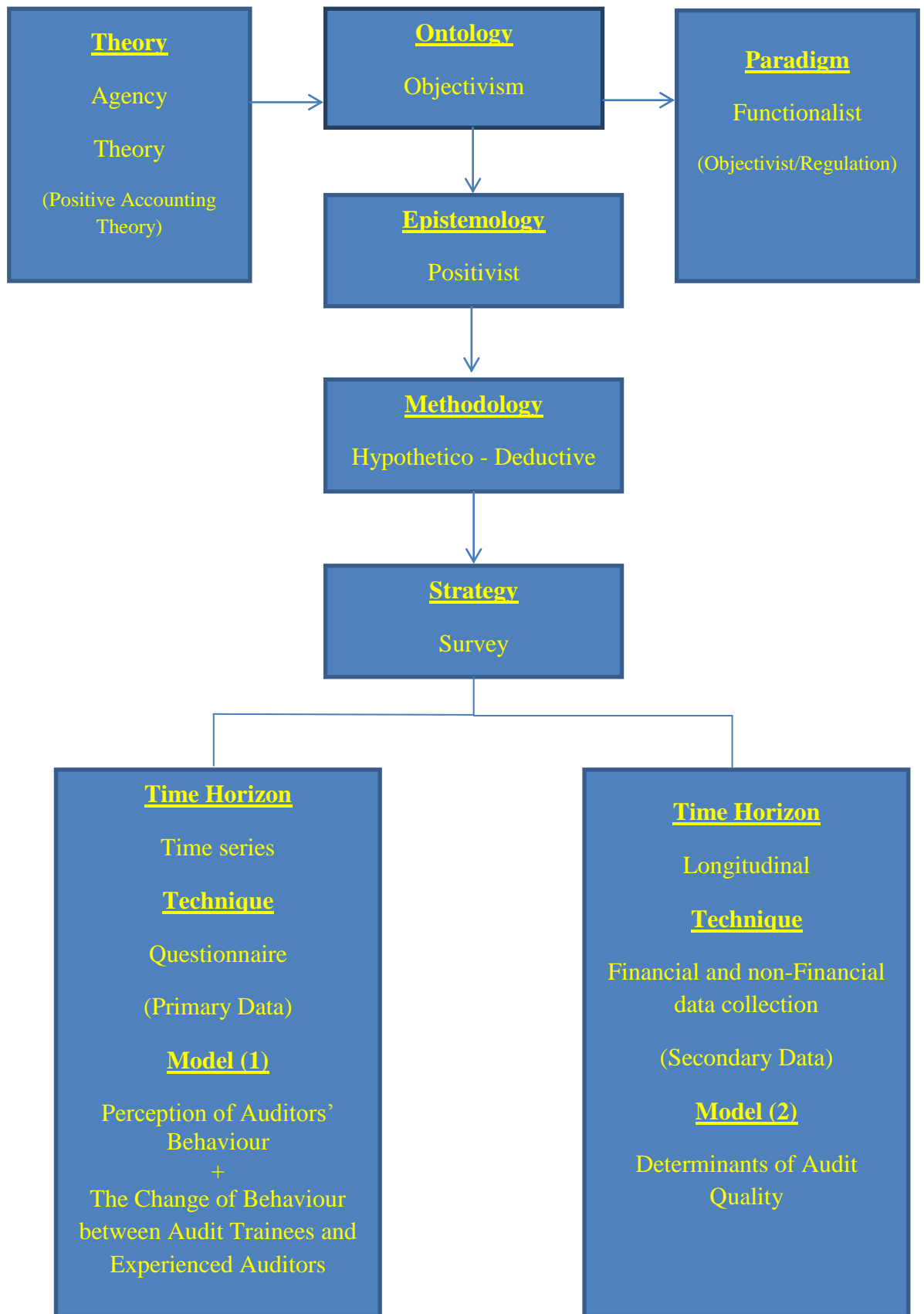
The fourth and last paradigm is the functionalist paradigm. Burrell and Morgan (1994) refer to this dimension as “often a problem-oriented in approach, concerned to provide practical solutions to practical problem”. The concept of rationalism characterises this dimension. It refers to rational organisations in which rational solutions are achieved by rational solutions. This dimensions fits with the ontological position.

As explained in the research philosophy sections, objectivism is the selected ontological position. Functionalist, as a result of the above illustration, is considered to be the most appropriate paradigm which fits with the research nature and philosophy.

The two empirical models are categorised by a survey time horizon. The first model is a cross-sectional survey over a selected group of respondents. The second model is a longitudinal survey over a four-year period.

Figure 4.2 graphically explains the research philosophy and research position as explained in the above sections.

Figure 4.2 – Research Philosophy and Models



Adapted from Iskander (2008)

4.4 Hypotheses Development - Empirical One

Monitoring costs, considered one type of agency costs, are the costs paid by principals (audit firm) to monitor the performance and stewardship skills of agents (Fama and Jensen, 1983). This process involves certain level of competencies and expertise to monitor management performance. It is argued that in a highly competitive market, managers increase their monitoring to be able to compete better. Auditors, accordingly, rely on the increased monitoring by managers to compensate the decrease in audit hours and consequently lower audit fees (Leventis et al., 2011). This will lead to setting tight budgets and tight deadlines that may push auditors to commit dysfunctional behaviour and in increase agency cost.

4.4.1 Auditors' Behaviour and Auditing Profession

4.4.1.1 Time Budget

Time budget is defined as budgeted time of an audit assignment or any other task to be accomplished, taking into consideration assignment fees and level of experienced staff allocated to an assignment (Margheim et al., 2005). In Big Four audit firms, the recoverable rate of assignments plays a significant role in auditors' behaviour, besides time-budget issues. Previous research has been conducted to analyse the effect of time-budget pressure on auditors' dysfunctional behaviour where results varied among different research and studies.

When auditors face time-budget pressure, the employer expects auditors themselves to solve it (McNair, 1991). This shows the absence of a proper system on how to deal with different pressure scenarios. Other researchers conclude that budgets are seen as less important due to the lack of experienced qualified staff (Pierce and Sweeney, 2004).

Time-budget pressure is not directly related to audit effectiveness when the risk of misstatement is high (Coram et al., 2004). The level of auditors plays a significant role in their behaviour when time-budget pressure exists (Kelly and Margheim, 2002). When senior auditors are involved in budget preparation, staff auditors' level of perception against time-budget pressure increases. It was also included in this study that time-budget pressure has more effect on senior than staff auditors when dealing with cognitive problems.

The reason for audit reduction behaviour is related to budget tightness (Otley and Pierce, 1996). It was concluded that budgets have become very demanding and tight; to an extent auditors are pushed to under-report actual hours worked to be in compliance with pre-set budgets. Ponemon (1992) concluded that budget pressure has minimal effect on auditors when there is high level of moral reasoning. The nature of business was also considered as another factor in dealing with time-budget pressure (Soobaroyen and C. Chengabroyan, 2006). Their results showed that time-budget pressure is much lower compared to previous research and studies due to the fact of the nature of sample tested in the Mauritius. It was concluded that a market with closely-related and a family business relationship tends to minimise time-budget pressure. Accountants and corporate managers believed that "increased budget pressure would be beneficial" (Lyne, 1992).

The hypothesis to be empirically tested would be as follows:

H1_a: There is a positive significant relationship between time-budget pressure and auditors' dysfunctional behaviour

4.4.1.2 Time Deadline

Time deadline is set normally for auditors to abide by a time frame allocated to a certain assignment. Time deadline is not always related to budgetary issues or monetary constraints. Listed companies, for example, need to finalise their accounts and issue their audited financial statements before a very tight date after fiscal year-end; in this case audit fees are not considered an issue or a pressure factor rather than finalising the accounts before a set deadline. In the audit profession, time deadline is a continuous pressure factor imposed on auditors to finalise audit assignments in compliance with professional standards within a very tight time allocated on different tasks of an assignment (McDaniel, 1990). It was concluded in the study that as time pressure increases, audit effectiveness directly decreases. Conversely, there is a positive relationship between time deadline pressure and audit efficiency. In other studies, it was revealed that time deadline is considered to be a significant factor leading to quality-threatening behaviour (Pierce and Sweeney, 2004). This study differentiated between time deadline pressure imposed by audit firms and the one imposed by clients. On the other hand, Margheim et al., (2005) concluded that time deadline pressure has more of an effect on junior auditors rather than senior auditors.

Glover's (1997) study revealed that time deadline pressure would cause an increase in audit effectiveness through reducing judgmental bias. It was also concluded that people in general, not only auditors, tend to predict negative perception about time deadlines; where in practice time deadline may lead to beneficiary output (Maule et al., 2000).

The hypothesis to be empirically tested would be as follows:

H1_b: *There is a positive significant relationship between time deadline pressure and auditors' dysfunctional behaviour.*

4.4.1.3 Performance Evaluation

Performance evaluation is not limited to chargeable hours recorded by personnel for accomplishing assignments within a time frame. Performance evaluations, mainly at Big Four audit firms, are prepared based on a set of detailed categories and sections. The “performance review” at KPMG is prepared based on technical knowledge, operational responsibilities, and behaviour skills (KPMG performance review, 2011).

At Ernst and Young (EY), the assessment process is classified into four sections as follows: 1) people 2) quality 3) operational excellence, and 5) market leadership and growth (EY Check list for your annual plan, 2011).

PriceWaterhouseCoopers (PwC) classifies their performance coaching and development process (PC&D) into more detailed sections covering areas related to relationship and sustainability of clients, leading and contribution to team success, demonstration of courage and integrity learning sharing and innovation, application of commercial and technical expertise, having a spirit of agility, and finally managing projects and economics (PwC PC&D, 2011).

We can conclude that audit firms use such assessment tools as part of their human capital strategy either to retain their staff or to create areas for improvement for low performance staff.

Style and frequency of evaluation have been hypothetically tested in the study “Cost-Quality Conflict in Audit Firms: An Empirical Investigation” by Pierce and Sweeney (2004). They concluded that evaluations have been seen as less important in recent years due to staff shortage. Otley and Pierce (1996) stated that evaluation tools are used primarily for budget-related matters rather than their main goal as defined by firms.

Other researchers concluded that the performance evaluation process is affected by geographical factors (Soobaroyen and Chengabroyan, 2006). One of their findings showed that working in a family business environment minimises the effects of evaluation factors on auditor behaviour. Netmeyer and Maxham III (2007) concluded that supervisors' approval on employees' performance rating is positively related to customer satisfaction rather than the actual rating of employees and the subjective assessment of the rater. An appraisal system is considered to be playing a positive role in employees' morale (Di Pboye, 1981).

The hypothesis to be empirically tested would be as follows:

H1_c: There is a significant positive relationship between performance evaluation process and auditors' dysfunctional behaviour

4.4.2 Dependent Variable Definition and Measurement

In the second empirical, auditor's behaviour is measured using two proxies: under-reporting of actual time and premature sign-off of audit steps. The dependent variable is measured in relation to time budget, time deadline, and performance evaluation. These three independent variables are all internal factors endogenous in the audit profession, mainly Big Four audit firms.

4.4.3 Level and Determinants of Auditors' Behaviour

There are two perspectives available when assessing the relationship between auditors and audit firms (Herrbach, 2001): the economic or legal perspective which is related to a work contract and the social perspective which is related to a psychological contract. The work contract is the traditional tangible contract that is signed between an employee and an employer to protect each party's rights and state the obligations. The

psychological contract is when an auditor is expected to accomplish a certain level of performance in exchange for various forms of compensation (Rousseau and Parks, 1993).

The main difference between the work contract and the psychological contract is that the elements of the psychological are not necessarily explicit but rather implied and implicit (Herrbach, 2001). In other words, it will not be mentioned in the psychological contract that dysfunctional behaviour, unethical behaviour and non-professional behaviour are prohibited. Such conditions and clauses are embedded in the social perspective of auditor-firm relationship.

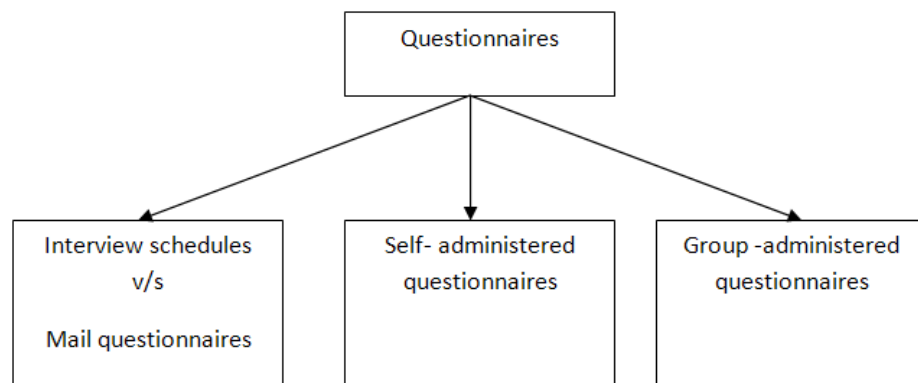
The questionnaire constructed for this study consists of forty-eight questions to measure auditors' dysfunctional behaviour against time-budget pressure, time deadline pressure and performance evaluation variables. Dysfunctional behaviour is measured by two proxies: premature sign-off and under-reporting of chargeable time. Those two proxies are the outcome of different behaviours as follows: 1) audit quality reduction behaviour, 2) team mismanagement, 3) non-professional behaviour (Herrbach, 2001) and 4) unethical behaviour.

The appendix includes the list of questions used in this survey.

4.4.4 Research design – Empirical One

The dependent variable is measured using the questionnaire method among many different techniques in the second empirical related to Big Four audit factors. Due to the fact that the population tested in this empirical is auditors employed at Big Four audit firms in the UK from selected offices at different levels, this leads to a large number of auditors. The use of a questionnaire helps in collecting data in a standardised way and it is considered an objective tool more than conducting interviews (Milne, 1999), especially in measuring behaviour that requires an objective tool which enables respondents to reply as objectively as possible.

Different styles of questionnaire may be prepared as follows:



(Oppenheim, 1966, Heinemann Educational Books Ltd)

Group-administered questionnaires are used in this model to gather data from auditors employed at Big Four audit firms. This method involved attending training seminars and contacting executives at Big Four audit firms to arrange for an on-site survey that mitigates follow-up procedures if questionnaires are mailed or sent electronically. A Likert scale is used to measure different responses in the questionnaires. This scale makes sure that all items measure the same thing – auditors’ behaviour. To eliminate the

need for judges, a five-point Likert scale is used starting from strongly agree, agree, neutral, disagree, and strongly disagree. These five positions are given weights from one to five after more complex methods and expanded weights were showed not to be effective (Oppenheim, 1966).

The method of using questionnaires has been used in many previous studies McDaniel, 1990; Pierce and Sweeney, 2004; Herrbach, 2001; Coram et al, 2004; Kelly and Margheim, 2002; Otley and Pierce, 1996; Lord and DeZoort, 2001; Choo, 1986; Fisher, 2001; Soobaroyen and Chengabroyan, 2006).

4.4.5 Independent Variables Definition and Measurement

The first model of this research covers the relationship between auditors' behaviour and different Big Four audit factors which may determine auditor behaviour. Mainly time budget, time deadline, and performance evaluation factors are said to be major factors in determining auditors' behaviour (Pierce and Sweeney, 2004; McDaniel, 1990; Otley and Pierce, 1996).

4.4.6 Population and Sample Criteria

The population of this research is comprised of external auditors. Many scandals took place and the recent financial crisis hit the global economy causing the unanswered famous question "where were the auditors?"(MacDonald, 2006). This research answers part of this question that is related to the behaviour of external auditors. It analyses employer (audit firm) factors exercised on auditors that may lead to possible dysfunctional behaviour by external auditors. The sample is made up of respondents (auditors) employed at KPMG, PwC, Deloitte, and EY operating in the UK. In addition to sending electronic questionnaires, field visits are arranged to Big Four offices to

secure high response rate. Questionnaires are distributed and collected during the field visits. This technique prevented delays in responses. The survey is made up of external auditors at all levels starting from staff auditor to partner level. Auditors from the mentioned audit firms are selected to be the population of this research as they represent the most exposed auditors to market and corporate challenges. The sample of this empirical study is made up of 145 usable questionnaires collected during 2012. Initially 167 questionnaires were sent to auditors. Auditors employed at the Big Four are estimated to have more clients and time-issues matters in addition to the firms' structure that imposes certain challenges on auditors being employed at Big Four firms. The survey was conducted during 2012. Previous studies that used the questionnaire method have a sample that varied between 100 and 501 as mentioned in Table 4.1.

Table 4.1

Article	Author	Population	Number of surveys		
			Sent	recvd.	%
The Effects of Time Pressure and Audit Programme Structure on Audit Performance	McDaniel, 1990	Staff auditors	179	179	1 *
Cost-Quality Conflict in Audit Firms: An Empirical Investigation	Pierce and Sweeney, 2004	Senior auditors	316	130	41%
Audit Quality, auditor behaviour and the psychological contract	Herrbach, 2001	Senior auditors	395	170	43%
The Effect of Risk of Misstatement on the Propensity to Commit Reduced Audit Quality Acts under time-budget Pressure	Coram et al., 2004	Senior auditors	501	103	21%
The relationships between senior auditor budget preparation, job structuring, job consideration and staff auditor time-budget pressure	Kelly and Margheim, 2002	Staff and senior auditors	155	85	55%
Auditor time-budget pressure: Consequences and antecedents	Otley and Pierce, 1996	Senior auditors	356	260	73%
The impact of commitment and moral reasoning on auditors' responses to social influence pressure	Lord and DeZoort, 2001	Staff auditors	171	171	1 *
Job Stress, Job Performance, and Auditor Personality Characteristics	Choo, 1986	All levels of auditors	315	97	31%
Role Stress, The Type A Behaviour Pattern, and External Auditor Job Satisfaction and Performance	Fisher, 2001	Staff auditors	165	123	75%
Auditors' Perceptions of Time-budget Pressure, Premature Sign Offs and Under-Reporting of Chargeable Time: Evidence from a Developing Country	Soobaroyenand Chengabroyan, 2006	All levels of auditors	100	52	52%

*Researchers attending training seminars venues where they made sure to receive all questionnaires from respondents.

4.5 Hypotheses Development – Empirical Two

Agency theory is used to explain the theoretical framework between governance mechanisms and audit quality. Shareholders, through the election of board of directors, establish an external layer of control over management by assigning external auditors. Management has incentives for a better quality audit that reflects transparency and more reliable financial statements and explanatory disclosures which reduce information asymmetry problems. This reflects that management practices align and serve shareholders' interest that minimise agency conflict cost.

4.5.1 Determinants of Audit Quality

4.5.1.1 Role Duality

Role duality is when the Chief Executive Officer (CEO) and chairman of the Board of Directors (BoD) positions are being held by the same individual (Lin and Liu, 2009). A CEO should not be holding a chairman of the board title at the same time (UK corporate governance code). The code mentioned that if under exceptional conditions role duality exists, the board of directors should consult major shareholders to explain and disclose the reasons in the next annual report.

Bliss et al. (2011) argue that external auditors do not rely in internal control systems when there is a role duality. This leads to an increase in substantive testing to obtain reasonable assurance that control procedures have not been overlapped as a result of role duality. An increase in audit fees takes place as a result of role duality.

Lin and Liu (2009) concluded that there is a downward switch to lower auditor quality when a CEO is operating as a chairman of the BoD at the same time. It is due to the fact that a firm with weak corporate governance mechanisms prefers to protect the

vagueness advantage for having weak corporate governance and consequently assigning lower auditor quality. This shows different difficulties faced by external auditors to retain their clients when there is a duality role.

Although role duality may help in the ease of decisions, but due to other governance mechanisms; role duality and the ease of decision making process may harm shareholders' interest. This situation might be considered working out to the benefit of agents rather than principals in an agency relationship (Donaldson and Davis, 1991). In agency theory, non-duality of CEO and chairman of the board titles should reduce the gap between auditors and directors' disclosures quality. It also reduces agency costs as more effective monitoring takes place (Uang et al., 2006). But it was concluded that a role duality factor is found to have no evidence to reduce the quality of management reporting which may cause a conflict with external auditors. A review of historical development in accounting, auditing, and corporate governance have been conducted and proposed different recommendations (Imhoff-Jr, 2003). Imhoff-Jr. (2003) recommends that a CEO or any top manager is prohibited not only to act as a chairman of the board but also not to be involved in the directors' nomination process to mitigate any conflict of interest. Segregation of duties between CEO and chairman of the board affects corporate governance performance since it minimises corporate failure which lead to lower audit fees (Krishnan and Visvanathan, 2009).

Role duality is not considered a factor for auditor resignation (Lee et al., 2004). It was concluded that there is no statistical relationship between auditors' resignation and duality role.

Brickley et al. (1997) argued that role duality is like an individual grading their own homework. But we notice that a fundamental requirement related to role duality is not

mentioned in the Sarbanes Oxley Act (SOX) (Green, 2004). This justifies why certain corporations assign one individual for both CEO and chairman of the board positions due to the “recommended” rather than “required” tone as per SOX and UK corporate governance code. Dalton et al. (2007) theoretically indicate that internal and external policies should not be led by one individual which may lead to bigger losses when there is a failure scenario. The consequences of such failures affect external parties where external auditors are one of these external parties, and subsequently audit quality.

The hypothesis to be empirically tested would be as follows:

H2_a: There is a negative significant relationship between role duality and audit quality.

4.5.1.2 Non-Executive Directors

Non-executive directors (NED) are defined to be directors taking part on the board of directors with more independence than executives ones. They are not involved in companies’ operations but rather they give assistance in the strategic processes and participate in monitoring in the presence of concentrated/dominant shareholders (Long et al., 2005). As part of the close relationship between board of directors and external auditors (UK corporate governance code, 2010), Uang et al.(2006) argue that more non-executive board members minimise agency cost and lead to better reporting quality and less gap with external auditors. But it was concluded that NED factor is shown to play a minor role in reducing dissonance between external auditors and management (Uang et al., 2006).

NED have more incentives than inside directors to better monitor management as they care for their reputational capital (Fama and Jensen, 1983), which will lead to mitigation of agency cost. Abott and Parker (2000) conclude that the percentage of outside

directors' variable is not significant in external auditors' selection process. A review of previous literature and studies have emphasised that a board member should be an outside member from a corporation and should not have any significant relationship with the corporation itself or its top executives and management due to the influence of those directors on different financial and non-financial processes (Imhoff-Jr, 2003). Board or audit committees' members' independence are shown not to have a significant effect on audit fees (Krishnan and Visvanathan, 2009). Chen and Sun (2007) argue that a more independent board of directors demands better auditor reputation. It was concluded that more independent boards were likely to dismiss Andersen earlier and to assign a Big Four audit firm as a successor auditor. Lee et al.(2004) concluded that an independent board of directors plays a significant role in mitigating external auditors to resign. Such boards of directors tend to work closely with external auditors to avoid and to reduce the level of hidden audit risks.

The hypothesis to be empirically tested would be as follows:

H2_b: There is a positive significant relationship between the percentage of non-executive directors to total board of directors' members and audit quality.

4.5.1.3 Board Size

Board of directors' size, as one of other factors and corporate governance mechanisms, has been researched in many previous studies where different conclusions revealed different roles of board size in corporations. There is a weak evidence that board size plays an important role in reducing inconsistencies between management and auditors regarding going-concern disclosures (Uang et al., 2006). Chen and Zhou (2007) hypothesised that clients with larger boards were more likely to dismiss Andersen at an earlier stage before the Enron scandal. The results support the above hypothesis that

companies with larger board size may mitigate auditor failure (Andersen) by dismissing the audit firm ahead of time of any scandal caused by the audit firm itself. Anderson et al.(2004) argued that larger boards provide better monitoring over the financial reporting process. They concluded that additional board members reduce the cost of debt.

Zahra and Pearce (1989) argue that larger boards have an advantage of being more diversified in directors' backgrounds. Such board members are heterogeneous in technical and educational backgrounds. As a result a larger and diversified BoD may not be subject to management domination and is able to promote for shareholders' interest. This shareholder interest will be evidenced at the end of every financial year through a financial statements audited by an external auditor. Monks and Minow (1995) argue that larger boards can be involved in more monitoring and overseeing management. It is due that having larger boards with several committees established by the BoD (audit, nomination, remuneration...) allow fewer committees' responsibilities for every board member.

Board size is inversely related to corporate performance, since larger ones are associated with more agency cost (Canyon and Peck, 1998). Small boards of directors may facilitate the decision making process, but when other governance mechanisms exist, this would harm shareholders' interest. A balance between monitoring costs and the stewardship role should be in place to achieve and maintain organisation performance (Donaldson and Davis, 1991). It is concluded from a sample of five European countries (UK, France, Netherlands, Denmark, and Italy) that as board size increases, corporate performance decreases.

The hypothesis to be empirically tested would be as follows:

H2_c: *There is a positive significant relationship between boards of directors' size and audit quality.*

4.5.1.4 Audit Committee Size

The size of audit committee is another independent variable selected to measure audit quality. The size itself gives an indicator of an effective discharge of audit committee duties (Chartered Institute of management Accountants, 2000). It is argued that larger audit committees are associated with more authority (Kalbers and Fogarty, 1993). Audit committees are established to mitigate high agency costs and to be used as a monitoring tool (Menon and Williams, 1994). Karamanou and Vafeas (2005) argue that larger audit committees possess wider knowledge. Kent and Stewart (2008) conclude that there is a negative relationship between disclosure levels and audit committee size. This negative coefficient is due to the fact that smaller audit committees rely on external auditors for disclosure level (Kent and Stewart, 2008). This conclusion leads to a substitution effect between external auditor and characteristics of audit committee as corporate governance mechanism. Karamanou and Vafeas (2005) state that the bigger the audit committees, companies issue less information about forecasts and subsequently less guidance is provided to the market only when shareholders are exposed to risk or wealth problems,; as a way to protect shareholders.

H2_d: *There is a positive significant relationship between audit committee size and audit quality.*

4.5.1.5 Audit Committee Independence

The audit committee independence explanatory variable is measured by the number of independent directors serving on the audit committee board. It is found that

audit committee independence is negatively related to dismissing external auditors after issuing a going-concern or unfavourable audit opinion (Carcello and Neal, 2003). Another study for Carcello and Neal (2000) reveal that companies have lower chances in receiving going-concern reports when their audit committees exhibit more affiliated directors. Audit committee independence plays a significant role in dismissing Anderson a little time before the scandal (Chen and Suny, 2007). Kent and Stewart (2008) conclude that audit committees' independence is not related to disclosure level.

From a theoretical framework, audit committees with no existence of independent directors are not perceived to be an objective monitoring tool between principles and agents and have negative impact on audit committees (Menon and Williams, 1994; Collier and Gregory, 2000). Audit committees' independence plays no role in earnings management (Piot and Janin, 2007). It was concluded in this study that the independence factor of audit committees is not related to earnings management, since affiliated directors are more involved, rather than independent ones, in earnings related matters. Piot (2004) conclude that independence of audit committees is negatively related to inside ownership.

The hypothesis to be empirically tested would be as follows:

H2_c: *There is a negative significant relationship between audit committees' independence and audit quality.*

4.5.1.6 Audit Committee Meetings

Audit committee effectiveness is measured by the number of meetings held by audit committees during a financial year. Chen and Suny (2007) argue that the frequencies of audit committee meetings are associated with audit committee

effectiveness. It is found that audit committee meetings are significantly and positively related to the choice of a Big Four audit firm to be assigned after Anderson as active audit committees demand better auditor reputation.

Kent and Stewart (2008) concluded that the frequency of audit committee meetings is positively related to the quantity of disclosures and it also reduces potential problems in financial reporting (Farber, 2005) as they are able to meet more to mitigate such problems.

Along with the theoretical perspective of agency theory regarding the monitoring role of shareholders; Collier and Gregory (2000) state that there is a positive relationship between audit committees' activities and higher quality auditors. Active audit committees are expected to lower audit fees, but being an active audit committee requires more time from external auditors leading to an increase in audit fees (Krishnan and Visvanathan, 2009). There is no statistical relationship between auditors' resignation and the number of meetings held by an audit committee and the selection of a successor auditor (Lee et al., 2004).

The hypothesis to be empirically tested would be as follows:

H_{2f}: There is a positive significant relationship between audit committees' frequency of meetings and audit quality.

4.5.1.7 Financial Literacy of Audit Committee Directors

Among different audit committee directors, an audit committee should comprise of at least one member who possesses financial experience (UK corporate governance code, 2010). The competency of audit committees is perceived more when financial and accounting experts exist (Cohen et al., 2002). It is concluded that there is a negative

relationship between audit committees financial expertise and disclosure levels (Kent and Stewart, 2008). This result is due to the fact that audit committees with less financial experts members tend to rely more on external auditors when it comes to the level of disclosure. But Mangena and Pike (2005) conclude that the financial expertise of audit committee members has a significant positive influence on interim disclosures. The contradicting results between Mangena and Pike (2005) and Kent and Stewart (2008) studies might relate to the type of disclosures (interim/annual).

Based on the suggestions of the agency theory regarding the monitoring role of principals, financial experts within audit committees are said to have positive impact on audit quality. They demand better audit quality that will lead to increase in audit fees (Basiruddin, 2011). This increase in demand for better audit quality is due to financial experts' monitoring role and their intent to comply implicitly with the principal-agent conceptual framework. Karamanou and Vafeas (2005) state that managements' forecasts are positively related to audit committees that constitute financial experts. It is argued that in this study better governance led to more forecasts and forecast update disclosures flowing from management to shareholders. Krishnan and Visavanathan (2009) conclude that there is an insignificant positive relationship between existence of financial experts in audit committees and audit fees. It is due to the fact that accounting experience and not general financial expertise gives a significant relationship against audit fees.

The hypothesis to be empirically tested would be as follows:

H2_g: There is a positive significant relationship between audit committee directors' financial expertise and audit quality.

4.5.1.8 Ownership

Ownership concentration is when block shareholders enjoy an extra power to enforce corporate contracts with different parties (Fan and Wong, 2005). This variable is selected to be included in analysing a potential relationship between audit quality and clients' corporate governance characteristics. It is argued that companies with weak governance mechanisms are characterised to have block holders (Lin and Liu, 2009). They concluded a positive relationship between ownership concentration and switching to smaller auditors, as such companies prefer to benefit from “*opaqueness gains*”.

The shareholders' voting is affected by the extent of block holders among other regular shareholders (Dao et al., 2008). It is hypothesised that there is a significant negative relationship between block ownership holders owning a minimum of five per cent or more of total shares and shareholders' approval on auditors (Dao et al., 2008). Shareholders can either sell their shares or vote against auditors' tenure, but it is less costly to vote against auditors' tenure to send dissatisfaction signals over audit quality and management reports. It was concluded that as auditor tenure increases, block holders tend to change external auditors.

Companies characterised by agency problems lead to high control concentration (Fan and Wong, 2005). They argue that such agency problems cannot be resolved by an internal control mechanism but through a reputable external auditor. It is concluded that companies with more agency problems (controlled shareholders) tend to hire Big Five (Four) external audit firms than companies with less problems. The study also reveals that Big Five (Four) auditors increase their fees when they are auditing companies with concentrated shareholders due to more entrenchment problems.

Noe (2002) argues that block holders can be used as a tool to reduce agency cost. They are involved in monitoring activities over problems causing high agency cost. Huafang and Jianguo (2007) state that block holders are positively related to the extent of voluntary disclosures. It is due to the fact that managers disclose more information in annual reports in order to minimise agency cost. Disclosing more information is expected to have a positive effect on audit quality.

Mak and Kusnadi (2005) also define block ownership variable to be holders owning a minimum of five per cent of equity. It was concluded that block ownership is positively significant to firm value, since block holders can control managers more than minor shareholders. Boone et al. (2007) argue that block holders increase board size to achieve more representation rather than displacing other board members. It was concluded that there is a positive relationship between block holder ownership and board of directors' size.

Since the Securities Exchange Committee (SEC) requires companies to disclose substantial shareholders holding a minimum of five per cent (Dao et al., 2008), in addition the Transparency Directive (TD) issued by the Financial Service Authority (FSA) requires a disclosure of substantial shareholders holding more than five per cent of UK and non-UK shares; a threshold of five per cent is set for the ownership structure variable.

The hypothesis to be empirically tested would be as follows:

H_{2h}: There is a negative significant relationship between ownership concentration/block holders and audit quality.

Many variables have been used in different studies to analyse audit related areas. Variables used in one study are not necessarily to be found at another study, depending on every research scope, objective, data and sample selected. The above selected and supported independent variables are selected to analyse their impact on audit quality and to assess companies' corporate governance mechanisms.

To understand the relationship between non-audit fees and corporate governance quality, Zaman et al. (2013) include the acquisition variable in addition the selected independent variables. The acquisition variable is included since non-audit services cover assignments related to mergers and acquisitions that are not part of a regular recurring audit assignment which is different from the current research scope. Others included different ownership variables along with board of directors' characteristics only to assess audit quality (O'sullivan, 2000). The objective of this study is to highlight on different ownership structures for listed companies between 1992-1994. Also non-audit services is included which is against the scope of this research since non-audit fees can be an indicator for auditors' impaired independence rather than audit quality proxy. Binary variable for auditors is also included in O'sullivan's study which is not applicable in the current research. Majority of the tested sample are audited by Big Four auditors where such proxy is not valid and did not give any statistical relationship with audit quality. Another proxy is collected to measure audit quality which is not commonly used in previous literature: existence of going concern disclosure. Only one per cent of the tested sample has modified unqualified audit opinions, existence of going concern disclosure, which gives no statistical relationship with audit quality.

4.5.2 Dependent Variable Definition and Measurement

The dependent variable of the second model is audit quality. Agency cost arises from separating ownership and control. It is mitigated by credible financial reporting (Jensen and Meckling, 1976). Auditing is perceived to be a tool of increasing the credibility of financial statements (Abott and Parker, 2000). These financial statements are used as a monitoring tool by shareholders against management performance and stewardship. Abott and Parker (2000) indicate that the selection process of external auditors is considered a signalling of a company's performance.

In theory, credible financial reporting audited by reputable audit firms decreases agency cost. It reduces information asymmetry between managers and shareholders, increases investors' confidence, and reduces the cost of raising new capital (Jensen and Meckling, 1976). Big Four audit firms are differentiated from other audit firms for their better reputation and credibility. This reputation is gained from investing in their "reputation capital" (Beatty, 1989). Big Four audit firms are perceived to provide better audit quality than non-Big Four audit firms due to their competence and independence (Khurana and Roman, 2004). Competence is achieved from huge investments in training related to international accounting standards, codes of ethics, international standards on auditing and fraud. Independence is achieved from their large portfolio of clients that enable them to withdraw from audit assignments when necessary.

As companies have more complex and larger transactions, the probability of auditor failure increases (Pratt and Stice, 1994). Pratt and Stice (1994) argue that to maintain reasonable audit quality in such companies, auditors incur more hours to obtain enough and acceptable audit evidence. Additional audit hours lead to an increase in audit fees to maintain audit quality.

Previous studies and researchers have used different proxies to measure audit quality. Non-audit fees, auditors' specialisation and auditors' market share are examples of audit quality proxies (Hussainey, 2009; Roheida, 2011). Non-audit fee is a signalling proxy for auditor independence rather than for audit quality. Delivering many services other than audit assignments by audit firms is considered another factor affecting auditor behaviour (Knapp, 1985). Knapp states that financial statement users will perceive that a company's management will obtain their preferred resolution when there is a conflict with external auditors. Wines (1994) states that auditors' independence is "in doubt" when remuneration from non-audit fees exist. The result of this study shows that companies with a higher proportion of non-audit fees receive more unqualified audit opinion in comparison with companies incurring lower non-audit fees and receiving different types of qualified audit opinion.

Audit firms auditing same line of industry clients and obtaining large market share; this might be an indicator of a lower audit quality. There is evidence that specialised auditors assign junior staff and spend minimal time on reviewing the control framework that could lead to a lower quality audit (Cahan et al., 2011). Kwon et al. (2007) indicate that auditor specialisation can have an effective role in improving accounting quality in a weak legislative environment. Auditors' specialisation is a substitute of a weak corporate governance mechanism in a weak legislative environment rather than strong legal environment.

The research scope is mainly about the compulsory provisions of audit and the mandatory audit assignments rather than other services performed by audit firms. Audit fee is used as an audit quality proxy to maintain the coherence between the two empirical studies. The first study comprises a survey about auditors' dysfunctional

behaviour. The dysfunctional behaviour is measured by pre-mature sign-off and under reporting of chargeable time related to audit assignments only. The detailed questionnaire in the appendix highlights the different areas auditors are questioned about which are related to tasks and scenarios of audit assignments rather than voluntary assignments and services. The potential dysfunctional behaviour, measured by under reporting of chargeable time, will lead to tight budgets and lower audit fees leading to a lower audit quality. Companies subject to Accounting and Auditing Enforcement Releases (AAER) by the Securities and Exchange Commission (SEC) incur audit fees premium (Barua and Smith, 2013). It is implied that auditors assess risk at a higher level for companies cited by the AAER. To maintain a good quality audit, auditors charge higher audit fees to cover all potential risks. Audit quality is measured by total audit fees (Holm and Birkholm, 2007; Krishnan and Visavanathan, 2009).

4.5.3 Research Design – Empirical Two

Audit quality against corporate governance characteristics is modelled by using a secondary data method. This method involves data collection for UK listed companies on the Financial Times Stock Exchange 350 (FTSE 350) excluding financial institutions and utilities from 2007 to 2010. To identify which regression test to choose, Hausman test is used to give guidance on whether to use random or fixed regression tests. Also, the Two Stage Least Square (2SLS) regression test has been run and used to mitigate for reverse causality problems (Jiraporn and Chintrakarn, 2013). To compare two sets of instruments, the Hausman specification test is used. A null hypothesis is stated where the larger set of variables is relatively efficient (Castella, 1989). The main objective to run 2SLS regression test is when there is a doubt that one or many explanatory variables are endogenous. It is better to test for exogeneity; if the hypothesis (variables are

exogenous and uncorrelated) is accepted, then it is better to rely on Ordinary Least Square (OLS) rather than 2SLS regression (Soderbom, 2009). Along with the 2SLS, the Durbin-WU-Hausman is used for endogeneity (Essen et al., 2013). The 2SLS regression test is used primarily for the model robustness purposes.

4.5.4 Independent Variables Definition and Measurement

The first model of this research covers the relationship between audit quality and clients' corporate governance characteristics. The two main mechanisms that are closely related to external auditors are board of directors and audit committee. Also, ownership structure is added as part of corporate governance characteristics to empirically assess its impact on audit quality.

Board of directors is measured by the following explanatory variables: role duality, percentage of non-executive directors to total number of board of directors, and board size. Audit committee is measured by level of independence and effectiveness.

A set of different additional variables are included in the model to control for the statistical relationship between audit quality and clients' corporate governance characteristics. Control variables are as follows: company's size, leverage, profitability, and line of industry

4.5.4.1 Role Duality

Role duality variable is defined as chairman of the board of directors and chief executive officer positions being held by the same person (Jun and Ming, 2009). Role duality is a dummy variable measured by 1 or 0 if role duality exists or not.

4.5.4.2 Non-Executive Directors

Non-executive directors are defined as directors serving at board of directors but who practise more independency than executive directors. They help in strategic matters and are not involved on operations (Long et al., 2005). A non-executive director variable is measured by the number of independent directors against total number of board of directors using the ratio technique over a period of five years for sampled companies.

4.5.4.3 Board of Directors' Size

Board of directors' size is selected to be an independent variable against auditors' behaviour, since board of directors' size plays an essential role in audit-related matters in addition to their executive and non-executive role in corporations (Uang et al., 2006; Chen and Zhou, 2007; Anderson et al., 2004). Board of directors' size is measured by extracting related data from companies' annual reports.

4.5.4.4 Audit Committee Size

The size itself gives an indicator of an effective discharge of audit committee duties (Chartered Institute of Management Accountants, 2000). It is argued that larger audit committees are associated with more authority (Kalbers and Fogarty, 1993). Karamanou and Vafeas (2005) argued that larger audit committees possess wider knowledge. Kent and Stewart (2008) concluded that there is a negative relationship between disclosures' levels and audit committee size. This negative coefficient is due to the fact that smaller audit committees rely on external auditors for disclosure level (Kent and Stewart, 2008). This conclusion leads to a substitution effect between

external auditor and characteristics of audit committee as corporate governance mechanism.

4.5.4.5 Audit Committee Independence

Audit committee, being one of other committees established by board of directors, has a close interaction with external auditors. It gives recommendation to the board of directors on assigning and reassigning external auditors (UK corporate governance code, 2010). The independence of audit committee members plays a significant role in the control and financial reporting process (Carcello and Neal, 2003). Also, the level of members' independence affects the decision of dismissing external auditors (Chen and Suny, 2007). It is measured by the number of non-executive audit committee members to total members of the audit committee. Related information about audit committees are extracted from annual reports of sampled companies.

4.5.4.6 Audit Committee Effectiveness

Audit committee effectiveness is defined to be the number of meetings audit a committee held during a financial year. Number of meetings gives us an indicator of how effective an audit committee is (Kent and Stewart, 2008) or whether it is established for compliance purposes. The effectiveness of audit committees is closely related to the work and behaviour of external auditors (Krishnan and Visvanathan, 2009; Chen and Suny, 2007; Kent and Stewart, 2008). Number of meetings held by audit committee is extracted from annual reports of sampled companies.

4.5.4.7 Financial Literacy of Audit Committee Directors

The competency of audit committees is perceived more when financial and accounting experts exist (Cohen et al., 2002). It is concluded that there is a negative

relationship between audit committees' financial expertise and disclosure levels (Kent and Stewart, 2008). This result is due to the fact that audit committees with less financial expert members tend to rely more on external auditors when it comes to the level of disclosure. But Mangena and Pike (2005) conclude that the financial expertise of audit committee members has a significant positive influence on interim disclosures.

Karamanou and Vafeas (2005) state that management forecasts are positively related to audit committees with more financial experts. Krishnan and Visavanathan (2009) conclude that there is an insignificant positive relationship between existence of financial experts in audit committees and audit fees. Audit committee financial expertise variable is measured by the number of audit committee financial experts divided by the total number of audit committee members. The members are counted by referring to annual reports used in the data collection process. Companies disclose in the audit committee section, which is part of the governance compliance and mechanisms' disclosures section in the annual report, members that have financial expertise by briefly stating their background, education and professional experience.

4.5.4.8 Ownership Concentration

Ownership concentration or block holders are defined to be shareholders holding a minimum of five per cent of a company's equity (Dao et al., 2008). They are said to have a big influence on companies' plans through their voting power. Companies characterised by agency problems face high control concentration (Fan and Wong, 2005). It was concluded that companies with more agency problems tend to hire Big Five (Four) external audit firms than companies with less problems. It is measured by 1 or 0 for the existence of ownership concentration or not.

4.5.5 Control variables

4.5.5.1 Companies' Size

Large clients tend not to dismiss external auditors (Francis and Wilson, 1988),(Haskin and Williams, 1990) since large clients care for a better reputation to have good-quality auditors due to the level of expertise and better audit quality expected from Big Four audit firms. It was also revealed in previous literature that company's size plays a significant role in minimising disagreements with external auditors that may lead to dismiss external auditors, since larger companies tend to retain their auditors to avoid being scrutinised by financial markets and analysts (Carcello and Neal, 2003). The majority of non-financial corporations comprising the sample of this model are assets-based companies where assets are the main driver for future economic growth and profit. Taking into consideration that net income is transferred to retained earnings in the equity section of the balance sheet, which will be indirectly reflected in total assets measurements; companies' size is measured by total assets.

4.5.5.2 Leverage

Previous literature has shown that debt is considered to be a healthy factor to companies' value. It provides managers with incentives for good performance to avoid creditors' pressure and the possibility of losing their jobs in a financial crisis (Masulis et al., 2007; Chen et al.,2010). Including a leverage variable to control companies' risk is essential to show if external auditors are performing a corporate governance role (Fan and Wong, 2005). Garvey and Hanka (1999) conclude that firms operating in anti-takeover law regions tend to increase significantly their leverage to avoid a hostile takeover.

Monitoring creditors and lenders, measured by leverage, is insufficient in preventing directors from over-optimistic financial reporting regardless of their companies' going-concern problems (Uang et al., 2006). Broye and Weill (2008) state that the higher the disclosure requirements and the more creditors' rights are protected, the higher the demand for audit quality by highly-leveraged companies. Leverage is measured by long-term debt divided by total assets.

4.5.5.3 Profitability

Profitability variable has been used to assess the impact on the auditor selection process, since more profitable companies are more likely to pay premium fees to have better audit quality (Abott and Parker, 2000). Dao et al. (2008) included return on assets ratio (ROA) to control the relation between auditor tenure and shareholder ratification, because it has been evidenced that the support for management proposals is weaker at low performance companies. Less financially distressed company directors tend to change and deviate from external auditors' going-concern modification, regardless of the real concerns of a going-concern problem, rather than companies with poor financial performance (Uang et al., 2006). Due to the fact that ROA's denominator includes total assets (both equity and debt), this can help in assessing how well a company is using its two financing options that can be reflected in corporate operational performance. Comparing ROA to other ratios, return on equity (ROE) for example, ROE's profitability is reflected by income over equity only, excluding debt. Companies' profitability is measured by return on assets ratio. It is calculated by dividing net income over total assets.

4.5.5.4 Liquidity

There is a positive relationship between liquidity and the level of interim financial disclosures (Mangena and Pike, 2005). Mangena and Pike (2005) argue that companies with higher liquidity are more inclined to show their ability to sustain forecasts earnings, although the results showed to have no significant evidence. Lin and Liu (2009) considered that liquidity plays a significant role in switching to a lower-quality auditor. Total assets balance is a mirror for total liabilities and owners' equity. Liquidity is measured by the ratio of current assets over total assets. This proxy is controlling not only for current liabilities and whether companies are able to pay their short term debts from their current assets; but also for their liabilities that might have a short term characteristic but it has been re-scheduled to have a long-term balance (bank over drafts). The proxy also controls for any potential dividends payments to shareholder that are included in the equity balance.

4.5.5.5 Industry

Line or nature of industry is included as a control variable to measure audit risk (Sahnoun and Zarai, 2009). It was concluded that audit firms are restructuring their firms per line of industry to meet market challenges. Clients operating in inherently risky industries have difficulties in obtaining debt financing with reasonable interest rates (Johnstone, 2000). Industry variable is analysed to study the changes of audit quality when line of industry differs. Industry sections are classified into six groups with a dummy measurement. Type/line of industry data is extracted from FTSE codes for listed companies. Table 4.2 summarising the independent and control variables is presented below, stating the description and proxy of each variable.

Table 4.2 Independent and Control Variables Summary

	Variable	Description	Proxy/measurement	References
Independent Variables	RD	Role duality	1 if the CEO is also chairman of the board, 0 otherwise	(Jun and Ming,2009); (Krishnan & Visvanathan, 2009); (Uang et al., 2006)
	NED	Non-Executive Directors	The percentage of outside directors on the board	(Long et al., 2005); (Lee et al., 2004); (Abott and Parker, 2000)
	BS	Board of Directors size	Number of members serving at board of directors	(Canyon and Peck, 1998); (Uang et al., 2006); (Boone et al.,2007); (Anderson et al., 2004); (Chen and Zhou, 2007)
	ACS	Audit committee size	Number of members serving on an audit committee	(Kent and Stewart, 2008). (Kalbers and Fogarty, 1993). Karamanou and Vafeas, 2005)
	ACI	Audit Committee Independence	The percentage of outside directors on an audit committee	(Carcello and Neal, 2003); (Piot, 2004); (Kent and Stewart,2008); (Chen and Suny, 2007)
	ACM	Audit Committee Effectiveness	Frequency of audit committee meetings	(Krishnan and Visvanathan, 2009); (Kent and Stewart, 2008); (Chen and Zhou, 2007)
	FINEXP	Audit committee financial expert directors	The percentage of financial experts on an audit committee	(Mangena and Pike, 2005); (Kent and Stewart, 2008); (Karamanou and Vafeas, 2005)
	OC	Ownership concentration/Block holders	Ratio of shareholders owning five per cent of equity against companies' equity	(Fan and Wong, 2005); (Krishnan and Visvanathan, 2009); (Huafang and Jianguo, 2007); (Mak and Kusnadi, 2005); (Boone et al., 2007)
Control Variables	SZ	Companie's size	Total assets	(Francis and Wilson, 1988); (Haskin and Williams, 1990); (Carcello and Neal, 2003)
	LEV	Leverage	Long-term liabilities divided by total assets	(Masulis et al., 2007); (Chen el al., 2010); (Fan and Wong, 2005); (Garvey and Hanka, 1999); (Broye and Weill, 2008); (Uang et al., 2006)
	ROA	Profitability	Net income divided by total assets	(Dao et al., 2008); (Abott and Parker, 2000); (Uang et al., 2006)
	LQD	Liquidity	Current assets divided by total assets	Lin and Liu (2009)
	InD	Industry	Type of industry from FTSE 350 schedules	(Johnstone, 2000); (Sahnoun and Zarai, 2009)

4.5.6 Population and Sample Criteria

The dependent variable, audit quality, is measured against companies' corporate governance characteristics and mainly those that are closely related to external auditors, board of directors and audit committee in addition to ownership concentration. Companies are selected from the FTSE 350 database that represents 350 companies in the UK, excluding financial institutions due to their own regulations and regulatory bodies (Financial Services Authority - FSA) to avoid any discrepancies in the sample and data collection. Utilities are excluded also from the sample due to the many regulations and regulatory bodies governing this market sector. In particular, the utilities sector is governed by Office for the Regulation of Electricity and Gas (OFREG), Office of Communications (Ofcom), Office of Gas and Electricity Markets (OFGEM), Office of Water Services (OFWAT), Water UK Water, and Industry Commissioner for Scotland. Excluding financial institutions and utilities align with previous literature as a result of their special regulatory bodies, financial structure and accounting standards (Chen et al., 2010). Government regulation, in financial institutions and utilities industries, lead to a limited role of board of directors (Yermack, 1996).

FTSE 350 is characterised to be an index based on "market capitalisation weighted stock market incorporating the largest 350 companies by capitalisation which have their primary listing on the London Stock Exchange" (FTSE, 2010). Such rated companies are assumed to be in compliance with most common international practices and help in giving a reasonable view about how their structure and boards' mechanisms affect audit quality. Four years' data is collected from 2007-2010 companies' annual reports. The four years' period helps in understanding how audit quality varies during that period; especially, many were asking about the role of external auditors as a result of different accounting scandals that took place. New updated codes were issued in

2010 and 2012. To mitigate for any differences in corporate governance compliance and to maintain a homogenous sample, the four years' data relates mainly to one code (The Combined Code of Corporate Governance, 2006). Analysing data collected over four years help in highlighting whether companies are abiding by the corporate governance code as the code follows the "Comply and Explain" approach rather than being legislated.

4.5.7 Model Specification

The econometric model of this empirical is as follows:

$$\begin{aligned} \text{LnAF} = & \beta_1 + \beta_2 \text{BS}_t + \beta_3 \text{NED}_t + \beta_4 \text{RD}_t + \beta_5 \text{ACS}_t + \beta_6 \text{ACI}_t + \beta_7 \text{ACM}_t + \beta_8 \text{FINEXP}_t + \beta_9 \text{OC}_t + \beta_{10} \text{Ln} \\ & \text{TA}_t + \beta_{11} \text{ROA}_t + \beta_{12} \text{LQD}_t + \beta_{13} \text{LeV}_t + \beta_{14} \text{InD}_t + e \end{aligned}$$

Where β_1 - constant (Intercept)

β_2 - β_{14} - coefficient

LnAF	= Audit fees
BS	= Board Size
NED	= Non-Executive Directors
RD	= Role Duality
ACS	= Audit Committee Size
ACI	= Audit Committee Independence
ACM	= Audit Committee Effectiveness/Number of meetings
FINEXP	= Financial literacy of audit committee directors
OC	= Ownership concentration
LnTA	= Company Size/Total assets

ROA = Company Profitability/Return on equity

LAQ =Company liquidity

LEV = Company Leverage

InD = Company type of industry

and,

e=error term

4.6 Conclusion

As explained thoroughly in the previous sections, objectivist ontological positions and the positive epistemology are the selected justified philosophical and methodological approaches used in this research. The agency theory, the stakeholder theory and the stakeholder-agency theory are the selected justified theories associated with this research. They are considered part of the positive accounting theory embedded in the objective ontology. As a result of this theoretical philosophical framework, the hypothetico-deductive (testing) approach is the appropriate approach to be used in this study.

There are two surveys included in this research. The first empirical model uses a valid and reliable questionnaire. The questionnaire has been reviewed, validated and a pilot study was conducted to assess its appropriateness to meet the model's objective. It measures and analyses the perception of auditors' behaviour in different scenarios. Mainly auditors' behaviour is analysed against time budget, time deadline, and performance evaluation factors.

In addition to the primary source of data collection for this model, observations are analysed using quantitative analysis and some qualitative analysis from respondents' interpretations.

The second survey is made up of a designed checklist for selected variables collected from a secondary data source. This model tests the set hypotheses and analyses the determinants of audit quality against corporate governance mechanisms. The methodology of the first empirical model tests the hypotheses against corporate governance characteristics; board of directors' independence, board of directors' size, role duality, audit committee size, audit committee independence, audit committee

effectiveness, audit committee with financial experts, and ownership concentration. It also tests audit quality against companies' characteristics, companies' size, profitability, leverage and line of industry as selected control variables.

The sample of the first model is comprised of auditors employed at the UK Big Four firms. The sample of the second model is comprised of non-financial companies listed at the Financial Times Stock Exchange (FTSE 350).

The relationship between theoretical perspective and the empirical analysis is linked using research methodology. The deductive methodology explains that a researcher is testing a theory by conducting empirical work and analysing related results. Due to the previous explanation, the research is directed to the hypothetico-deductive methodology. This type of methodology helps the main purpose of the research as it is based on a theory rather than establishing a theory (inductive approach).

Chapter Five
Auditing and Auditors' Behaviour

Chapter Five

Auditing and Auditors' Behaviour

5.1 Introduction

This chapter represents the first empirical model of this research. It measures and assesses auditors' dysfunctional behaviour. The role of external auditors exists as a result of management-shareholders unstable relationship leading to information asymmetry (DeAngelo, 1981). Due to this critical role of external auditors, previous studies have been conducted to analyse auditors' behaviour and what factors may push auditors to behave in a dysfunctional manner (Margheim et al., 2005; Ponemon, 1992; and Kelley and Margheim, 2002).

The main objective of this chapter is to highlight factors leading to dysfunctional behaviour. The survey conducted is comprised of 48 questions used to analyse auditors' perceptions about dysfunctional behaviour. The dependent variable, dysfunctional behaviour (DB) is measured using two proxies as signals of dysfunctional behaviour; premature sign-off and under-reporting of chargeable time. The independent variables used in this model are time-budget pressure, time-deadline pressure, and performance evaluation.

The results highlight factors auditors believe are embedded in the accountancy profession that push them to commit dysfunctional behaviour. The results also show how behaviour differs between experienced and inexperienced auditors employed the Big Four in the UK.

5.2 Descriptive Statistics

The sample of this empirical study is made up of 145 usable questionnaires. Initially 167 questionnaires were sent to auditors. Different follow-up techniques were used to secure a high response rate. Mainly, mail questionnaires and group-administered questionnaires methods were used. The breakdown of the questionnaires' response rate is presented below.

Table 5.1

Response rate and breakdown of questionnaires

	Firm A	Firm B	Firm C	Firm D	Pooled
Total questionnaires sent	39	48	35	45	167
Total questionnaires received	36	44	32	43	155
Usable responses	35	41	30	39	145
Response rate	90%	85%	86%	87%	87%
Respondent's gender					
Male	27	27	21	22	97
Female	8	14	9	17	48

The results in Table 5.1 indicate that the overall response rate for the four audit firms is 87 per cent. This is considered a good response rate as compared to other studies conducted about auditors' behaviour (Pierce and Sweeney, 2004; Herrbach, 2001; Coram et al., 2004; Kelly and Margheim, 2002; Fisher, 2001; and Otley and Pierce, 1996) as shown in Table 6.2. Field visits are arranged to Big Four offices to secure high response rate. Questionnaires are distributed and collected during the field visits. This technique prevented delays in responses.

Table 5.2 – Summary of previous studies’ response rate

Article	Author	Population	Number of surveys		
			sent	recvd.	%
Cost-Quality Conflict in Audit Firms: An Empirical Investigation	Pierce and Sweeney, 2004	Senior auditors	316	130	41%
Audit Quality, auditor behaviour and the psychological contract	Herrbach, 2001	Senior auditors	395	170	43%
The Effect of Risk of Misstatement on the Propensity to Commit Reduced Audit Quality Acts under Time-budget Pressure	Coram et al., 2004	Senior auditors	501	103	21%
The relationships between senior auditor budget preparation, job structuring, job consideration and staff auditor time-budget pressure	Kelly and Margheim, 2002	Staff and senior auditors	155	85	55%
Auditor time-budget pressure: Consequences and antecedents	Otley and Pierce, 1996	Senior auditors	356	260	73%
Role Stress, The Type A Behaviour Pattern, and External Auditor Job Satisfaction and Performance	Fisher, 2001	Staff auditors	165	123	75%

Table 5.1 also indicates that the questionnaire response rate is fairly collected from the four firms to help in generalisation and to avoid responses from a single firm that will dominate the whole sample.

As part of answering the research question of how auditors’ behaviour may or may not change between experienced and inexperienced auditors, the survey was conducted with questionnaires sent to different levels of auditors.

The breakdown of "period of employment in accountancy" and "period of employment with the current employer" is presented in Table 5.3. It can be noted that the majority of auditors (61 per cent) are newly employed at their firms. Managers/Directors are the least group of auditors (6 per cent) that have stayed with the current employer. This can be due to the fact that auditors, by the time they reach such a level (Manager/Director), become more experienced and get exposed to different types of industries where they start receiving competitive job offers and packages. This is due to the nature of the audit/accountancy profession. Auditors work in different lines of service and are assigned at different kind of companies (manufacturing, trading, construction, financial services, etc.). This kind of diverse experience helps auditors to become knowledgeable in different market segments and to possess remarkable "know how".

The above conclusion can be supported by referring also to the "period employed in accountancy" results. It can be noted that the Managers/Directors are the least group of auditors (18 per cent) to accumulate number of years of experience in accountancy. Again, this can be due to the high turnover of auditors at this level due to competitive offers outside the audit profession.

Table 5.3 – Employment Breakdown

	Audit title	Pooled	
<i>Period employed in Accountancy (years)</i>			
0-2	Audit trainee	53	37%
3-5	Senior auditor	33	23%
6-8	Manager/Director	26	18%
>8	Partner	33	23%
<i>Period with current employer (years)</i>			
0-2		89	61%
3-5		33	23%
6-8		8	6%
>8		15	10%

The same argument applies to audit trainees. They constitute the majority of auditors who have the least years of experience (37 per cent), and they are the biggest group of auditors who are employed with the current employer (61 per cent). This is due to the fact that auditors start an accountancy career; they accumulate a certain number of years in the profession until they are promoted to manager/director level where they move out from accountancy for better competitive packages and job offers.

Table 5.4 clearly highlights the gap between individuals progressing to graduate and post-graduate degrees and/or to accomplishing professional qualifications. Only 35 per cent of auditors finished a graduate degree while 56 per cent possessed a professional qualification (ACCA, CPA, etc.). This concern has been raised by Coughlan (2012) where it was mentioned that UK universities are failing to attract skilled staff needed by a modern economy. This gap between graduate degrees and professional qualifications

could be due to the nature of the accountancy profession. Accountancy firms, especially the Big Four, care more about hiring and retaining those who are professionally qualified rather than those who possess graduate degrees.

Table 5.4 – Academic and Professional Background

	Pooled	
<i>Academic degree</i>		
Bachelor degree	93	64%
Masters degree	50	34%
PhD	2	1%
<i>Professional qualification(s)</i>		
ACCA	40	28%
CPA (US)	28	19%
CFA	4	3%
CIMA	0	0%
CIA	8	6%
Other(s)	6	4%

CVA (1): Certified Valuation Analyst; CISA (2): Certified Information System Audit;

CFSA (1): Certified Financial Services Auditor; CFE (1): Certified Fraud Examiner

The breakdown of auditors comprising the sample of this empirical study is presented below.

Table 5.5 – Respondents Level Breakdown

	Pooled	
<i>Job title</i>		
Audit trainee	53	37%
Senior auditor	26	18%
Manager/Director	60	41%
Partner	5	3%
Other	1	1%

The results in the below table indicate the need for a professional qualification to progress in the accountancy field. It is interesting to find that all managers/directors (60) possess a professional qualification.

	ACCA	CPA	CFA	CIMA	CIA	Other	Total
Manager/Director	30	18	3	6	-	3	60

As a result of the above finding, the gap between professional qualification and graduate degree can be justified, as having a professional qualification is becoming one of the fundamental factors in the promotion scheme within the Big Four.

Finally, some respondents were keen to write down their personal opinions about certain sections of the questionnaire and 40 per cent stated their emails, asking to receive the analysis and the results of this empirical chapter.

5.3 Test of Hypotheses

The hypotheses tested in this study cover the relationship between auditors' dysfunctional behaviour as a dependent variable and the impact of time budget, time deadline and performance evaluation as independent variables (H1_a, H1_b, H1_c). The

stated independent variables are considered three of the most common factors that may push an auditor to commit a dysfunctional behaviour (Otley and Pierce, 1996; Soobaroyen and Chengabroyan, 2006; Fisher, 2001).

In addition to assessing auditors' perception on dysfunctional behaviour, the empirical study highlights the differences in behaviour and perception between audit trainees and experienced auditors (senior and above). The questionnaire is constructed using the five-point Likert scale technique where 1 stands for Strongly Agree, 2 stands for Agree, 3 stands for No Opinion, 4 stands for Disagree, and 5 stands for Strongly Disagree.

As a result of using the five-point Likert scale measurement, the analysis is based mainly on the mean and median scores. Normally, in data mining the mean score is used as it represents a set of objects and it is calculated by the average of the numbers divided by the set number. The mean value is also useful in the analysis as it represents a fundamental quantity in statistics and it is the middle number of a sorted list of numbers (Jianet al., 2012). Accordingly, a mean scored above three indicates that responses are directed toward disagreement and responses below three indicate responses are directed toward agreement.

Table 5.6 - Time-Budget Pressure

Under-reporting of chargeable time	Mean (Median)
01. Auditors should not employ the practice of under-reporting chargeable time, even in the face of tight time-budget constraints.	1.69 (2)
02. Senior and staff auditors knowingly under-report chargeable time.	2.40 (2)
03. When facing a tight budget, auditors shift chargeable time to non-chargeable categories on their time report/time sheet.	2.77 (2)
04. Sometimes auditors need to under-report chargeable time to meet budget constraints.	2.72 (2)
05. Sometimes new auditors need to under-report time but with added experience, there is less of a need.	3.12 (3)
06. When facing a tight budget, auditors charge time to other clients that should have charged to this client.	3.33 (4)
07. Under a tight budget, auditors tend not to pursue an unexpected problem occurring during a mission.	3.30 (4)
08. When facing a tight budget, auditors under-report chargeable time by performing chargeable work in their personal time.	2.01 (2)
Premature sign-off	
09. Under time-budget pressure, auditors prematurely sign-off a required audit step, which is not covered at other stages of the audit, without completing the work or noting the omissions of procedures.	3.17 (3)
10. Under time-budget pressure, auditors tend to reduce the amount of work on a step beyond the normal.	3.03 (3)
11. Auditors tend to perform superficial reviews of clients' documents to comply with budgeted time allocated to the audit assignment.	3.35 (4)
12. Under a tight budget, auditors may accept insufficient or light explanations from the client.	3.01 (3)
13. Under time budget pressure, auditors insufficiently document a technical point needed for the execution of a step.	3.17 (4)
14. Under a tight budget, auditors declare in their working papers that they have performed a control that they did not actually perform.	3.89 (4)
15. Under a tight budget, auditors tend to handle substantive tests faster.	2.69 (2)
16. Under a tight budget, auditors tend to tick mark audit schedules after an essentially superficial review of supporting client documents.	3.27 (3)

5.3.1 Auditors' Behaviour and Time Budget

Table 5.6 includes a set of questions that assess the perception of external auditors about dysfunctional behaviour and how they perceive dysfunctional behaviour if being caused by time-budget pressure.

The results summarise the relationship between the dependent variable and the first independent variable. The dependent variable is measured using two proxies: under-reporting of chargeable time and premature sign-off. Accordingly, eight questions are presented to cover under-reporting of chargeable time and eight questions cover the premature sign off behaviour.

It can be noted that auditors believe, in abstract, that they should not employ any kind of dysfunctional behaviour including under-reporting of chargeable time (Q1). This question is stated to assess the fundamental understanding of external auditors about the chargeable time reporting concept.

Although auditors believe that they should not behave in a dysfunctional manner, senior and staff auditors intentionally and knowingly commit under-reporting of chargeable time when they face time-budget constraints (Q2). The objective of this question is to highlight the fact that under-reporting of chargeable time is not an outcome of unintentional error where the results show exactly the opposite. This intentional behaviour of committing dysfunctional behaviour might be due to the absence of an improper system to deal with such issues. Some studies mentioned that when auditors face time-budget pressure, the employer expects auditors to solve things on their own (McNair, 1991).

It was interesting to notice that the act of under-reporting of chargeable time is committed in a way not to affect other audit engagements and assignments (Q3 and Q6). The manipulation of chargeable hours, when facing time-budget pressure, is committed by switching and recording chargeable time as non-chargeable hours on the auditors' time sheet or assignment time record. In other words, if auditors are working on other clients where they do not have any time budget issues, they prefer to shift the chargeable hours to a non-chargeable category when facing a time budget rather than shifting them to another client's records. It can be concluded that, in general, auditors care more for assignments' profitability than their utilisation rate. This could be due to the auditors' perception and unwillingness to be seen as incompetent. They put extra efforts to maintain a good percentage of assignment realisation. The feasibility for meeting a budget variable was also linked to personal normative beliefs and their willingness to disapprove or approve the under-reporting behaviour (Lightner et al., 1982).

Another example of dysfunctional behaviour exercised by under-reporting of chargeable time can be found in the response to question 8. It can be noticed that auditors do not only shift hours among different clients and tend to record chargeable hours as un-chargeable, but also the existence of time-budget pressure pushes auditors to work chargeable hours in their personal time. Working in their personal time may affect the progress of auditors in other areas in the accountancy profession and consequently may affect the audit quality.

Budget tightness is also one of the factors leading to dysfunctional behaviour (Q4). The experience factor shows no major impact on under-reporting of chargeable time when

facing time-budget pressure (Q5). The mean and median of question number 5 gave almost similar scores. Hence, a senior auditor stated the following:

“Logically with time and experience, yes they learn how to do things faster, however they are simultaneously assuming on new roles and responsibilities at a faster rate than they actually get time to master their previous roles. So in this case I don’t know exactly what to answer because even though it would take them less time, but there are other constraints especially in understaffed situations (which is almost always the case).”

It can be noted from the above participant’s response that experience might not help significantly in reducing dysfunctional behaviour. Although more experience is obtained over the years and auditors may incur less chargeable hours as a result of the accumulated knowledge; the issue of understaffing at audit firms causes more tasks to be assigned to auditors leading to more pressure and dysfunctional behaviour.

Auditors committing dysfunctional behaviour still care to solve any unexpected issues during an audit assignment although they are facing time-budget pressure (Q7). It can be noted that auditors are ready to work in their personal time (Q8), to avoid manipulating other assignments’ chargeable hours (Q6) and to solve unexpected issues regardless of time-budget pressure. But one interesting comment was stated by an audit trainee:

“If the other client has a budget and the manager overseeing the projects is one and the same.”

In other words, auditors are willing to commit dysfunctional behaviour but not at the expense of not covering all major problems they face during an audit assignment if two assignments are managed by one audit manager as mentioned in the above comment.

The second set of questions (9 to 16) assess auditors perception of dysfunctional behaviour but through questions and statements related to premature sign off rather than under-reporting of chargeable time.

The results of these questions related to technical dysfunctional behaviour (premature sign off) and showed different opinions whether or not auditors commit a premature sign off when facing time budget pressure. There was no clear opinion as to whether auditors prematurely sign off an audit step which is not mentioned at another audit step without mentioning the omission and performing the procedures required (Q9). Also, the responses did not show any clear direction if auditors are willing to reduce the time required in certain audit procedures if they are facing time-budget pressure (Q11). A senior auditor stated the following:

“I believe it depends on employee’s character. However usually when an auditor checks information/ specially clients’ documents and document their work they know they are held liable for it and generally do check them correctly unless (a) they don’t have the experience and have been assigned a risky or technical section which happens quite often and therefore they miss on important elements or (b) they don’t care about their career in audit and willing to take a risk on their reputation.”

It can be noted from the above response that there are different types of auditors who may care less for audit reputation. This contradicts with the general perception that auditors are perceived to be professional expert individuals in their field. Possible dysfunctional behaviour could be the result of the existence of such employees.

Coram et al. (2004) mentioned that accepting doubtful evidence is directly affected by the time-budget pressure variable but it is not the case for risking misstatement; but for

minimising a sample, the risk factor has a conditional effect. In other words, auditors tend to minimise a sample when there is a low risk of misstatement.

The same result applies to the communication with the clients and auditees' management (Q12). The results show no clear direction whether auditors may or may not accept light and insufficient explanation from clients for the sake of avoiding time-budget constraints and to prematurely sign off an audit procedure to move forward and accomplish other audit procedures. Again, this can be due to the fact that auditors are not willing to show they are incompetent (Lightner et al. 1982). It is worth mentioning that auditors are required to communicate with the management and with those charged with governance regardless of the company's size. Auditors are required to communicate mainly with those who are responsible for preparing financial statements (ISA 260 and AU 380), as auditors will issue their opinion on the financial statements which are prepared by management.

It is interesting to notice that that the box-ticking exercise showed no clear opinion in this survey (Q16). The box-ticking exercise is historically known to be a common problem in the audit practice (McNair, 1991).

Going back to the tone of replies about auditors' behaviour who are willing to work in their personal time and not to harm another audit assignments when facing time-budget pressure, the results show that auditors are not willing to perform superficial reviews of clients' documents although they might be facing tight budget constraints (Q11). It is noted that external auditors are willing neither to insufficiently document a technical misstatement nor to declare in their working papers that a certain audit step has been performed while in fact it has not, when facing time-budget pressure (Q14).

Despite the fact that auditors are not willing to perform superficial reviews (Q11) and to accept light evidence from clients (Q12), it can be noted that auditors are willing to work and to handle substantive tests faster to meet deadlines to avoid premature sign-off of audit steps.

It can be concluded from the above results that when time-budget pressure exists, auditors are willing to commit dysfunctional behaviour but in different ways. The results showed that the majority of dysfunctional behaviour acts within the time-budget context are not significantly affecting the technical side of the audit cycle. On the other hand, abiding by the audit methodology does not mean other areas in the audit are not violated. The under-reporting of chargeable time act, although audit methodology and practices are not violated to a certain extent, plays a significant role in improper costing in the audit firm, which will consequently affect clients' portfolio and audit quality. The under-reporting of chargeable time may give a false indicator about budgeted fees, required number of hours for every auditor and the level of expertise required for every assignment. In other words, an audit assignment may show profitable figures at the clearance stage while in fact excessive hours have been spent on this assignment without being recorded properly; this consequently will harm future negotiations between the audit firm and its clients. It can be clearly implied that the first hypothesis (H1_a) is satisfied where it is supported that there is a positive relationship between auditor dysfunctional behaviour and time-budget pressure.

Table 5.7 - Time deadline pressure

Premature sign-off	Mean (Median)
01. It is a common practice to reduce the sample size specified in the audit programme without noting the reduction to meet tight deadlines.	3.67 (4)
02. Auditors tend to declare in their papers that they have performed a control that they did not actually do to meet a tight deadline.	3.97 (4)
03. Auditors tend to believe that the nature of the audit methodology and the length of documentation of audit work is a factor determining premature sign off to meet tight deadlines.	3.01 (3)
04. Completing work to meet time deadline typically means the auditor does not have a break or have any personal life beyond work.	2.28 (2)
05. Auditors tend to exercise premature sign off for some audit steps if everyone in the audit team is working too fast to meet the time deadline.	3.17 (3)
06. Auditors are asked by their superiors to handle substantive tests and generally operate faster to meet time deadlines.	2.32 (2)
07. The length of time booked for audit assignment is adequate.	3.35 (4)
08. Auditors are given a margin of insufficient documentation on a technical point needed for the execution of a step to meet a deadline.	3.07 (3)
09. Time-deadline pressure is the result of increased competition in the audit market.	2.57 (2)
10. Time-deadline pressure interferes with the proper conduct of an audit.	2.57 (2)
11. Auditors tend to rely on internal auditors' work to save time.	3.30 (4)
12. Auditors tend to focus on risky areas to save time.	2.40 (2)
13. Premature sign off usually occurs when auditing non-risky cycles rather than critical ones.	2.58 (2)

Table 5.7 - Time deadline pressure (Continued)

14. Time deadlines have become tighter in recent years.	2.22 (2)
15. Time deadlines tend to be given without consultation.	2.41 (2)
16. Time deadlines are very tight, practically unattainable.	2.63 (2)
17. Normally, time deadlines are met ethically when the manager and the senior coordinate things together in setting up the budget.	2.38 (2)
18. There is a tendency for auditors to sign off audit steps prematurely if auditors are working quickly to meet a time deadline.	2.98 (3)

5.3.2 Auditors' Behaviour and Time Deadline

Table 5.7 includes a set of questions related to time deadline pressure. The objective of the above questions is to assess auditors' behaviour and their perception about time deadline pressure factors and related behaviour (dysfunctional).

It can be noted that auditors do not reduce the sample, without documenting the reduction, for time deadline purposes (Q1). This can be due either to the documentation reason or sample-reduction. In other words, auditors may or may not reduce the sample size if they document the reduction to meet a time deadline. When auditors are working for a low-risk environment client, they are encouraged to use their professional scepticism to manage the audit assignment. In a low-risk control framework, sample size and materiality thresholds can be adjusted to perform less work (Elder et al., 2010).

Along with the same tone of replies in Q1, auditors tend not to declare fictitiously in their working papers about an accomplished task while in fact they did not perform just to meet tight deadlines (Q2). The result in Q2 supports the conclusion in Q1 where it

can be noticed that auditors do not reduce the sample size and fictitiously document accomplished audit procedures.

There is no clear opinion about the impact of audit methodology to meet time deadlines. Hence, an experienced audit manager mentioned the following:

"A major section of an audit assignment budget is allocated on certain audit steps related to audit methodology. Sometimes the massive documentation in this section may push some staff members to prematurely sign off some steps to meet tight deadlines. I doubt we can find a solution for our massive documentation in the methodology section. We, as Big Four, are known for our methodology that helps us to understand the client and its business environment before we start auditing the accounts. "

Meeting time deadline requires a misbalanced life for auditors (Q4). The result of Q4 in table 5.7 is almost similar to the results in Q8 (Table 5.6) related to time budget. It is clearly noted that facing time-budget pressure and meeting time deadlines are accomplished only when auditors invest in chargeable hours from their personal time. A senior auditor stated the following:

"During the high season of audit, not only we do invest from our personal time, but also we may have no life besides continuous work to meet very tight deadlines. It is not the case as time-budget pressure. We might be given a very relaxing/inflated budget but we need to clear the audit in a very short period."

The above comment aligns with the results of the mentioned questions. It is clear that majority of auditors work in their personal time to meet deadlines. This dysfunctional behaviour is mainly committed in time deadline rather than time-budget scenarios.

Regardless whether other members of the audit team are committing dysfunctional behaviour or not, the results show no clear direction that auditors are affected by other team members who are prematurely signing-off audit steps (Q5).

When facing time deadline, auditors might be asked by their superiors to handle substantive tests faster (Q6). None of the respondents stated that superior instructions may or may not lead to dysfunctional behaviour. The results in Q6 can be linked to the result of Q1. It is implied that auditors may reduce sample size (in accordance with auditing standards) only if they are instructed to do so by their superiors. Again, reducing sample size, if exercised according to auditing standards and audit methodology, is not considered dysfunctional behaviour.

The length of time booked for an audit assignment is not adequate (Q7). The time allocated, taking into consideration tight deadlines, is playing a role in pushing auditors to commit dysfunctional behaviour through premature sign-off of audit steps. A comment by a senior auditor is as follows:

“Definitely No. Audit assignments are booked quite often without a full detailed plan taking into consideration the level of expertise of the employee and it only focuses usually on fieldwork time. It does not usually include review time, coaching, team and client meetings and discussions, documenting and wrapping up the file. It also assumes that employees will face no challenges and that they are 100 per cent effective and efficient.”

The above comment highlights issues related to budget preparation that is affecting auditors’ behaviour. It shows that budgets are prepared without taking into consideration inherent and audit challenges faced by auditors at the field work. Such challenges may delay auditors to finalise assignments leading to time pressure and potential dysfunctional behaviour.

Other studies concluded that tight deadlines and length of assignment play a significant role in audit efficiency. McDaniel (199) stated that listed companies, for example, need

to finalise their accounts and issue their audited financial statements before a very tight date after fiscal year-end. In the audit profession, time deadline turned to be a continuous pressure factor imposed on auditors to finalise audit assignments in compliance with professional standards within a very tight time allocated on different tasks of an assignment. It was also revealed that time deadline is considered to be a significant factor leading to quality-threatening behaviour (Pierce and Sweeney, 2004).

There is no clear opinion about the existence of a margin for insufficient documentation (Q8). The result here is related only to technical documentation. Other studies concluded that time pressure plays a positive role in reducing useful data (Glover, 1997). The results of the laboratory experiment show that only a time pressure factor, excluding other factors, may affect auditors' judgments. This conclusion states that when auditors are dealing with non-diagnostic information, time pressure factor has positive consequences by pushing auditors to eliminate non-useful data leading to a reduction in judgmental bias. In the case of auditors dealing with diagnostic information only, the results supported previous studies that it significantly reduces but does not eliminate dilution.

The increase in competition between audit firms is perceived to be a major factor in time deadline pressure (Q9). The result shows that external auditors perceive that tough competition among audit firms is playing a significant role in setting and accepting tight deadlines. It should be mentioned here that tight deadlines are imposed not only by the clients themselves due to certain reporting dates, but also from the audit firm itself (Pierce and Sweeney, 2004). Audit firms might be enrolled in tight deadlines to push their staff to finish assignments as early as possible, to allocate them to a maximum number of assignments to increase the firm's market share which may lead to a better

reputation. A senior manager highlighted another type of pressure and stated the following:

“I actually think that it is the fee pressure that is driving increasing competition. The fee pressure is based on the state of the economy, which then results in some firms reassessing their strategy, considering whether to concentrate on increasing market share and ‘buy’ audits (performing them at a loss), or whether they seek to control their cost base, working on making the audits they do have more efficient and profitable (e.g. leveraging work to the lower grades when ‘rising stars’ have been identified that could do the work with appropriate supervision.”

The above comment highlights the concept of pressure auditors face where they are not limited to time budget, time deadline, or performance evaluation. The respondent highlights the concept of market-free pressure that may play an important role in pushing audit firms to change their strategies. Such strategies change may cause more pressure depending on the strategy type and management philosophy.

It can be noted clearly that time deadline violates the code of conduct (Q10). Auditors believe that clearing an audit assignment within the time allocated, with the presence of tight deadlines, is accomplished when a violation of code of conduct takes place.

The relationship between internal and external auditors is still not helping in minimising the effect of time-deadline pressure. The score shows that external auditors are not relying on internal auditors’ work. This can be the result of the rising role of internal audit function on the expense of external audit work (Holm and Birkholm, 2007). They concluded that internal control mechanisms, and as a results of promulgations, have extended the role of control system and gained a supervisory role. In addition, the audit committee should be independent from management, besides the evolving role of

internal auditors. Internal auditors are involved more in risk assessment and evaluating internal control systems. Hence, it should be mentioned that International Standards of Auditing (ISA 610) and Statements of Auditing Standards (SAS 500) have allowed external auditors to rely on internal audit work where applicable and under certain conditions defined.

External auditors tend to focus on risky areas to meet tight deadlines (Q12). The response shows a clear direction of “agreement” that premature sign off occurs mainly in non- risky areas (Q13). Nevertheless, a senior manager made the following comment:

“A point to note here is that audits are meant to be planned to be risk-focused, so that more work is performed in an area that is likely to result in a misstatement as opposed to focusing effort in an area that is non-risky. My answer is ‘no opinion’ since I think auditors tend to focus on risk areas as it’s what they are supposed to do, and not to save time.”

It can be noted from the two questions that auditors try to use different techniques when facing time-deadline pressure. One of the techniques is applying the risk-based approach rather than auditing the full set of accounts with no consideration to risky/non-risky areas. It is implied that dysfunctional behaviour is taking place on non-risky areas where auditors believe they have least responsibility and liability. This may be due to the effect of good corporate governance mechanisms (Cohen et al., 2007). It is concluded that auditors tend to lower the level of testing when there is an effective role of corporate governance and this was also applied on the control and inherent risk level. It can be due also to the moral reasoning of external auditors. Lord and DeZoort (2001) concluded that the level of tolerance of misstatement is higher with auditors having a lower level of professional and organisational commitment under social influence.

Coram et al. (2004) concluded that accepting doubtful evidence is directly affected by the time pressure variable but it is not the case for risk of misstatement, but for minimising samples, the risk factor has a conditional effect. In other words, auditors tend to minimise samples when there is a low risk of misstatement. Also Lee (2002) concluded that junior auditors, under risk-based auditing, are given a professional freedom to decide on the time allocated to them, based on budgets. Time would be used efficiently to obtain the possible evidence that might reduce material misstatement. This condition is giving staff auditors the ability to decide either to limit or to expand their work in areas not material to the accounts. In this way, staff auditors are showing commitment in compliance with audit methodology from one side and reducing quality audit (irregular auditing) from another side, but only in areas not material to the accounts.

External auditors perceive that time deadlines are becoming very tight and practically unattainable (Q14 and Q16). The responses show a clear direction towards the “agree” answer. This could be due to the tough competition (Q9). It can be noticed here that due to the fact that time deadline is unattainable and becoming very tight, dysfunctional behaviour will take place if time deadline is needed to be met (Q10). Time deadline pressure is directly related to Premature Sign-Off (PSO) where audit firms have been imposing pressure to complete and to start another assignment (Pierce and Sweeney, 2004). Also, Otley and Pierce (1996) found that time budgets were generally perceived as demanding targets.

The responses in questions 15 and 17 show a clear agreement on the unattainability of time deadlines when it is set without consultation. When senior auditors and audit managers coordinate, time deadlines can be met ethically without committing

dysfunctional behaviour. These results highlight the issue of communication between auditors and their superior to manage an audit assignment and minimise time deadline pressure. The communication could be also extended include clients.

Auditors perceive that meeting deadlines is becoming a demanding target and these deadlines are applicable when there is overstaffing but not in an employees' shortage condition (Pierce and Sweeney). The shortage in the turnover of auditors at audit firms can be due to the tough competition in the accountancy profession (Q9). There is a lack of proper relationship between senior and junior auditors (Kelly and Margheim, 2002). Staff auditors (audit trainees) perceive more time pressure when seniors are involved in budget setting, while senior auditors believe that there is less time pressure on staff auditors when they are involved in budget planning and deadlines setting. For audit structuring, there is a negative relation between staff/auditor perception of time pressure. It is assumed in this finding that if there is less senior job structuring, there is a high staff auditors' perception of time pressure. Kelly and Margheim (2002) mentioned that these findings show a big gap between senior and staff auditors. While seniors believe if they participated in budget preparation, the pressure will be less on staff auditors, but the results showed exactly the opposite. Moreover, Otley and Pierre (1996) stated that if seniors are not involved in audit reduction behaviour and under-reporting of time, budgets would never be attained or less attained.

The response to question 18 aligns with the response to question 5. There is no clear opinion whether a dysfunctional behaviour is committed if auditors are working fast. This question highlights the assumption that dysfunctional behaviour can be the result of an unintentional mistake when auditing procedures are performed quickly. It aligns

with the response about auditors and whether they are affected by other auditors working fast to meet deadlines (Q5).

It can be concluded clearly from the above analysis of different questions that the hypothesis set for time deadline independent variable has been satisfied. There is a positive significant relationship between time deadline pressure and auditors' dysfunctional behaviour. The dysfunctional behaviour is committed in certain audit cycles more, compared with other cycles as stated above.

Table 5.8 – Performance Evaluation

Premature sign-off	Mean (Median)
01. To progress their careers (get promotions) auditors tend to build, maintain and utilise a network of clients and internal relationships to achieve a better performance rating.	2.01 (2)
02. Strict audit firm methodology is less exercised by senior auditors in order that they receive positive feedback from clients.	3.39 (4)
03. When there is a risk of losing an audit assignment, partners tend to compromise rather than comply fully with audit firm methodology and auditing standards.	3.01 (3)
04. Auditors tend to sign-off an audit step prematurely when such a sign-off may positively affect their performance evaluation.	2.94 (3)
05. Audit managers participate in the development of ways to meet client needs, increase clients' portfolio and have more assignments so that they get better performance from their superiors.	2.17 (2)
06. Partners/Directors tend not to report all material control weaknesses to get assigned at a later stage to a non-audit assignment.	3.29 (4)
07. Auditors tend to rely less on subject matter experts even if the auditors themselves are not highly knowledgeable in a certain area to maintain a good recoverability rate.	2.81 (2)
08. An auditor expecting a promotion may exercise less professional scepticism if this would harm assignment profitability.	3.30 (4)
Under-reporting of chargeable time	
09. Auditors tend to choose the highest thresholds of sampling techniques for the sake of achieving a good recoverability rate.	2.74 (2)
10. Senior auditors who assist in proposal preparation and research tend to lower the budgeted hours to increase their chances of winning a proposal for better evaluation from their superiors.	2.66 (2)
11. Auditors are asked to under-report chargeable hours to achieve a good appraisal.	3.32 (4)

Table 5.8 – Performance Evaluation (Continued)

12. Auditors tend to work in their personal time rather than actual hours spent in order to maintain a profitable assignment.	2.23 (2)
13. Finishing an audit assignment with a good recoverability rate is one of the most important factors for a good appraisal and performance evaluation.	2.61 (2)
14. Audit managers delegate tasks based on the standard hourly rate of every team member rather than the skills needed for every cycle in order to achieve a good profitable assignments and consequently better appraisal.	2.87 (3)

5.3.3 Auditors' Behaviour and Performance Evaluation

Table 5.8 includes a set of questions related to performance evaluation. The objective of these questions is to assess if auditors may commit a dysfunctional behaviour for the sake of receiving good performance evaluation. Two proxies are used as indicators of dysfunctional; premature sign-off and under-reporting of chargeable time. Performance evaluation is conducted within the audit firm but external factors are involved in this process, such as meeting clients' expectations, response to clients' requests promptly and contributing in increasing the clients' portfolio. The results below support the stated hypothesis that there is a positive significant relationship between performance evaluation and auditors' dysfunctional behaviour

Auditors are aware that a good performance evaluation is accomplished by building, maintaining and utilising a network of clients, and building an internal professional relationship among other auditors within the firm (Q1). Since the survey is conducted in the UK and it covers auditors employed at the Big Four, mainly in London offices, the criteria of building an internal relationship among other auditors is based on the relationship within the audit team at a first level, and auditors working in the same line of service at a later stage. Big Four London offices hire huge number of auditors and it

will be difficult for auditors to be assessed based on their relationship with all colleagues in the firm. The performance evaluation questions are initiated by a question to assess auditors' perception (all levels) about the importance of the relationship with clients which will lead to a better performance appraisal at another stage.

There is no tendency for auditors to exercise and apply less methodology for the sake of receiving good feedback from their clients (Q2). The result in this question can be linked to similar questions and scenarios when auditors face time-budget and time deadline pressure. Auditors do not insufficiently document light evidence when facing time-budget pressure, and they do not declare in their working papers that they have performed a control procedure when in fact they did not when facing time-deadline pressure.

There is no clear opinion whether auditors perceive partners to manage audit assignments with full professional behaviour (Q3). It was interesting to notice that the mean and median scores for this specific question are the same (3). Normally, audit partners are considered to be the role model for auditors from different levels. Surprisingly, the result shows that the “role model” is not perceived as fully compliant with audit methodology and auditing standards.

The same score is noted in question 4. There is no clear opinion if auditors may prematurely sign off audit steps if they believe that such dysfunctional behaviour would lead to a better performance evaluation by their superiors. It is worth mentioning that the mean score is 2.95. It can be concluded that there is a slight tendency to commit a dysfunctional behaviour if this would lead to better performance evaluation.

Auditors believe that participating in increasing clients' portfolio and meeting clients' needs are essential for better performance appraisal (Q5). This conclusion can be linked

to the pressure auditors, at managerial levels, face to approach new clients especially during the recent financial crisis. Also it can be linked to the perception of auditors who believe that competition in the audit profession is a significant factor in dysfunctional behaviour when facing time-tight deadlines. It can be concluded that it is not enough for auditors to be sceptical, professional, qualified, hardworking, and possess good analytical skills but also they need to engage in increasing their firms' clients portfolio and market share for better performance evaluations and potential promotions.

As part of conducting an audit assignment, auditors assess the internal control framework and governance mechanisms. Weaknesses in the design and effectiveness of internal control are stated in a supplement report in addition to the audited financial statements named as "Letter to Management" report. This report includes auditor's findings of control weaknesses, the impact of such deficiencies on the financial statements, recommendation by auditors, and a section for management response explaining the control weakness from their point of view. Controls weaknesses findings can have a significant or insignificant effect on the financial statements (ISA 265). Due to this fact, the findings are classified as High, Moderate, or Low findings according to the risk level and their implications on the financial statements. A report to management is not mandatory in a regular audit assignment but it depends on the auditors' assessment to communicate control findings to those charged of governance. The result shows that partners/managers do not have a tendency not to report control weaknesses for the sake of getting engaged in a non-audit assignment. Again this conclusion can be related to similar results that show auditors are not willing to harm technical procedures when facing time deadlines and time-budget pressures and also for the sake of receiving better performance appraisal.

It is surprising to find that auditors rely less on Subject Matter Experts "SME"/Resource Matter Experts "RME" even in audit cycles where they do not have enough knowledge about it (Q7). The result indicates that for the sake of good recoverability rate of an audit assignment, auditors may tolerate lowering audit quality by not delegating a task they do not have enough knowledge about. It is believed that introducing a new member to the initial audit team, who has not been included during the planning phase, would harm recoverability rate. Additional chargeable hours would be incurred leading to lower assignment profitability.

The result also indicates that auditors may prematurely sign off an audit step regardless of whether they are fully knowledgeable about a specific task or not. This argument aligns with the result of audit communication with internal auditors (Table 6.7, Q11). To meet deadlines, auditors rely less on internal auditors, and to achieve a good recoverability rate auditors rely less on SMS(s). Both actions may lead to dysfunctional behaviour and consequently lower audit quality.

There is no tendency for auditors to exercise less professional scepticism for the sake of accomplishing a good performance appraisal (Q8). The questionable mind skill is perceived to be significant in the audit profession regardless of difficulties faced. The result here is similar to the results of questions about accepting light audit evidence, insufficient documentation and reducing the sample size when facing tight deadlines (Table 5.7, Q1 and Q8). Hence, an audit trainee mentioned the following:

“It depends on auditors' level. If manager and above my answer is yes. If at lower levels, this behaviour is not more often exercised.”

The above audit trainee's comment is due to the fact that either audit trainees do not possess enough professional scepticism to exercise it or audit managers are keener to

receive better performance evaluations. Again, this comment can be linked to the fact that audit managers are in the most category of auditors who have stayed the minimum time period at their audit firms, since at manager level auditors start to be very 'attractive' to job hunters. Accordingly, they are keener than audit trainees to receive a better performance evaluation to boost their profile that will lead to the better competitive package they are looking for.

To receive a good performance appraisal, by working on and finishing profitable assignments, auditors select the highest thresholds of sampling techniques that may help them to spend less hours in fieldwork. A senior manager included the following comment regarding this question as follows:

“I have answered that I agree with this if the thresholds are as per the methodology and no corners have been cut. I am very much a fan of finding more efficient and smarter ways of conducting an audit.”

The above comment implies that choosing the highest sampling thresholds is not always a dysfunctional behaviour activity. Some auditors continuously try to find new and smart techniques that will help them to reduce hours spent without affecting the audit quality.

Sampling and materiality drivers are highly dependent on the professional scepticism of auditors. Sampling is based on the materiality thresholds in the first step, and the nature of findings at a later stage. The level of tolerance and the size of the sample is directly related to the clients' control environment, design, effectiveness and implementation of internal controls and the level of risk in different audit cycles (Elder et al., 2010). Auditors tend to lower the level of testing when there is an effective role of corporate

governance (Cohen et al., 2007). Auditors tend to minimise a sample when there is a low risk of misstatement (Coram et al., 2004).

It is perceived that senior auditors have a tendency to increase client portfolio by participating in budget preparation. But their involvement is perceived that they lower budgeted hours to have better chances of winning a proposal and consequently receive a good performance evaluation. Lowering budgeted hours in a proposal may be one of the significant factors in creating time-budget pressure and unprofitable assignments. Because of the tough competition among audit firms, budget preparers tend to lower the budgeted proposed hours as much as they can to win a proposal. As a result of this behaviour, the audit team may experience time-budget pressure when starting the fieldwork and the big gap between budgeted hours and actual hours spent would be evidenced. While the main intention of budget preparers is to receive a good performance evaluation that will contribute to their professional progress, such behaviour would harm an audit assignment and may lead to adverse results against the budget preparers' intention.

There is no tendency for senior auditors to ask other audit team members to under-report chargeable time for better performance appraisal (Q11). But question 13 indicates that finishing an assignment with a good recoverability rate is considered to be one of the most important factors for a good performance appraisal. An audit trainee mentioned the following comment regarding this question:

"I heard about it, but I've never done it. It depends on each line of industry."

It can be concluded that superiors might not ask audit team members to under-report chargeable hours, but it is implied that profitability is a key factor for progress and promotion. This conclusion can be related to the result indicating that auditors tend to

work from their personal time rather than recording actual time spent on work when facing time-budget and time-deadline pressures. It has been proven that when auditors are expecting a performance appraisal, they also have the tendency to work in their personal time also to achieve it (Q5).

Audit managers have a tendency to delegate tasks based on the standard hourly rate of audit team members rather than the skills required, to achieve profitable assignments and better performance appraisal at a later stage (Q14). This finding highlights the issue of proper allocation of auditors on different audit assignments. Assigning an auditor only because the hourly standard rate is lower than other team members may lead to deficiencies in audit quality. This kind of dysfunctional behaviour, in addition to minimising the number of chargeable hours, may lead to serious consequences in the accountancy profession. Auditors should be allocated based on the level of experience they possess related to every assignment rather than their standard hourly rate and the managers' forecasts about assignment profitability and good performance appraisals. On the contrary, allocating auditors with relevant experience to audit tasks may lead to less chargeable hours as such auditors would be expert in what they are doing and need less time compared with others who do not have the same type of experience. As a result of this proper allocation based on the level of experience and skills needed, time deadline would be met, chargeable hours might be less and a good performance appraisal would be achieved without committing any kind of dysfunctional behaviour.

It can be noted from the above analysis that audit trainees and senior auditors were the only two levels of auditors that included additional comments to the time budget set of questions. It is implied that audit trainees and senior auditors are exposed more to time budget pressure since majority of field work is conducted by those auditors. The

majority of those, especially audit trainees, are represents the largest group of auditors who have been employed at their audit firm; unlike audit managers who represent the least group of auditors who spent the least time with their employers.

In the time deadline section, experienced auditors (audit seniors and senior managers) were the two categories of auditors who included additional comments about the survey. Due to the fact that the majority of those possess a professional qualification, they are at a level higher than audit trainees. These auditors are concerned more with time deadlines issues that will affect their career progress while auditors at a lower level are more frank in their opinions when it comes to time budget constraints.

5.4 Changes in Behaviour and Sensitivity Analysis

Table 5.9 – Comparative Mean responses/Time-budget Pressure

Under-reporting of chargeable time	Audit Trainees	Experienced Auditors	Mann-Whitney P-value
01. Auditors should not employ the practice of under-reporting chargeable time, even in the face of tight time-budget constraints.	1.70	1.68	0.96
02. Senior and staff auditors knowingly under-report chargeable time.	2.28	2.47	0.65
03. When facing a tight budget, auditors shift chargeable time to non-chargeable categories on their time report/time sheet.	2.92	2.68	0.21
04. Sometimes auditors need to under-report chargeable time to meet budget constraints.	2.68	2.75	0.87
05. Sometimes new auditors need to under-report time, but with added experience, there is less of a need.	3.49	2.90	0.00*#
06. When facing a tight budget, auditors charge time to other clients that should have been charged to this client.	3.47	3.25	0.36
07. Under a tight budget, auditors tend not to pursue an unexpected problem occurring during a mission.	3.38	3.26	0.64
08. When facing a tight budget, auditors under-report chargeable time by performing chargeable work in their personal time.	1.91	2.07	0.34
Premature sign-off			
09. Under time-budget pressure, auditors prematurely sign-off a required audit step, which is not covered at other stages of the audit, without completing the work or noting the omissions of procedures.	3.32	3.08	0.22

Table 5.9 – Comparative Mean responses/Time-budget Pressure (Continued)

10. Under time-budget pressure, auditors tend to reduce the amount of work on a step beyond the normal.	3	3.05	0.80
11. Auditors tend to perform superficial reviews of clients' documents to comply with budgeted time allocated to the audit assignment.	3.47	3.28	0.45
12. Under a tight budget, auditors may accept insufficient or light explanations from the client.	3.11	2.96	0.45
13. Under time-budget pressure, auditors insufficiently document a technical point needed for the execution of a step.	3.32	3.08	0.24
14. Under a tight budget, auditors declare in their working papers that they have performed a control that they did not actually perform.	4.19	3.72	0.03*#
15. Under a tight budget, auditors tend to handle substantive tests faster.	2.47	2.82	0.10
16. Under a tight budget, auditors tend to tick-mark audit schedules after an essentially superficial review of supporting client documents.	3.25	3.28	0.79

1 strongly agree, 2 agree, 3 no opinion, 4 disagree, and 5 strongly disagree.

*p < .05(Mann-Whitney U test)

#t < .05(t-test)

5.4.1 Changes in Behaviour – Time Budget

Table 5.9 summarises the significant differences between two groups of auditors. The sample has been stratified into two groups: audit trainees and experienced auditors. Audit trainees are those who possess not more than two years of experience in accountancy (Table 5.2) and experienced auditors represent the remaining sample of the survey (senior, managers/directors, partners). The Mann-Whitney test, which is equivalent to the Wilcoxon rank sum test is used to analyse the significant differences between the two groups. The Mann-Whitney test is considered the most appropriate test

to give higher efficacy in a non-parametric data (John and Priebe, 2006). In addition to the Mann-Whitney test, the t-test is used for sensitivity analysis purposes. The t-test is usually used to meet the assumption of normality.

For the time-budget pressure set of questions, it can be noted that the responses in two questions varied significantly between audit trainees and experienced auditors (Q5 and Q14). In the first question, where it is mentioned that new auditor under-report chargeable time but with added experience they exercise less dysfunctional behaviour, the responses varied significantly. Experienced auditors perceive that audit trainees have more tendency to under-report chargeable time. It is one of the rare questions in this survey that is related solely to the behaviour of new auditors. It is expected that audit trainees, who are considered new auditors, would avoid replying or declaring they are under-reporting chargeable time. The significant variance can be also a result of knowledge and expertise of audit trainees in the audit profession. Some activities exercised might be considered a dysfunctional behaviour but audit trainees themselves might not perceive it as a dysfunctional behaviour, but with added experience they may notice and perceive more dysfunctional activities.

The same argument applies at the premature sign-off scenario. There is a significant variance between audit trainees and experienced auditors on whether auditors declare in their working paper they have performed a control procedure while in fact they did not.

This can be due to the fact that most field work and working paper documentations are performed by audit and trainees and junior auditors. Experienced auditors work less on working papers and focus more on managing the whole assignment, communication and meeting with management and their superiors, and managing other audit assignments at the same time. Experienced auditors have a tendency also to believe that audit trainees

prematurely sign-off audit steps as they are continuously reviewing the work of audit trainees and apparently they have evidenced a kind of dysfunctional behaviour committed.

Table 5.10 – Comparative Mean responses/Time Deadline Pressure

Premature sign-off	Audit Trainees	Experienced Auditors	Mann-Whitney p-value
01. It is a common practice to reduce the sample size specified in the audit programme without noting the reduction to meet tight deadlines.	3.89	3.54	0.20
02. Auditors tend to declare in their papers that they have performed a control that they did not actually do to meet a tight deadline.	4.13	3.88	0.41
03. Auditors tend to believe that the nature of the audit methodology and the length of documentation of audit work is a factor determining premature sign off to meet tight deadlines.	3.11	2.95	0.47
04. Completing work to meet a time deadline typically means the auditor does not have a break or have any personal life beyond work.	2.09	2.39	0.28
05. Auditors tend to exercise premature sign off for some audit steps if everyone in the audit team is working too fast to meet the time deadline.	3.06	3.23	0.41
06. Auditors are asked by their superiors to handle substantive tests and generally operate faster to meet time deadlines.	2.08	2.46	0.04*#
07. The length of time booked for audit assignment is adequate.	3.19	3.45	0.18
08. Auditors are given a margin of insufficient documentation on a technical point needed for the execution of a step to meet a deadline.	2.94	3.14	0.23
09. Time deadline pressure is the result of increased competition in the audit market.	2.57	2.58	0.98

Table 5.10 – Comparative Mean responses/Time Deadline Pressure (Continued)

10. Time deadline pressure interferes with the proper conduct of an audit.	2.79	2.43	0.06
11. Auditors tend to rely on internal auditors' work to save time.	3.57	3.15	0.06*#
12. Auditors tend to focus on risky areas to save time.	2.47	2.36	0.25
13. Premature sign off usually occurs when auditing non-risky cycles rather than critical ones.	2.66	2.53	0.28
14. Time deadlines have become tighter in recent years.	2.30	2.17	0.13
15. Time deadlines tend to be given without consultation.	2.38	2.42	0.79
16. Time deadlines are very tight, practically unattainable.	2.58	2.66	0.69
17. Normally, time deadlines are met ethically when the manager and the senior coordinate things together in setting up the budget.	2.53	2.29	0.06*
18. There is a tendency for auditors to prematurely sign off audit steps if auditors are working quickly to meet a time deadline.	3.02	2.97	0.70

1 strongly agree, 2 agree, 3 no opinion, 4 disagree, and 5 strongly disagree.

*p < .05(Mann-Whitney U test)

#t < .05(t-test)

5.4.2 Changes in Behaviour – Time Deadline

Table 5.10 summarises the significant differences in responses between audit trainees and experienced auditors when facing time-deadline pressure. It is interesting to identify a significant difference in responses between audit trainees and experienced auditors when a question is directed towards to a specific group of auditors rather than on a pooled basis. There is a significant difference in responses regarding question 6

“Auditors are asked by their superiors to handle substantive tests and generally operate faster to meet time deadlines” .It can be noticed that experienced auditors’ responses indicate that they have less tendency to ask auditors to perform tasks faster to meet deadlines. On the other hand, audit trainees responses indicate more significant direction towards the “agree” answer. Since this question is directed towards the behaviour of senior (experienced) auditors only, audit trainees may reply with clearer perception as they are not considered to be involved in such behaviour. Experienced auditors may believe that declaring that they ask audit trainees to perform tests faster may expose them to potential liability as a result of possible dysfunctional behaviour at a later stage.

There is also a significant difference ($p \leq 0.5$) between audit trainees and experienced auditors’ responses when it comes to reliance on internal audit work (Q11). Again, such variance is expected due to the nature of the question. Experienced auditors tend to rely more on internal audit work compared with audit trainees. When external auditors decide to rely on the work of internal auditors, it is their responsibility to assess the competency of the internal audit team and the quality of their work (ISA 610). Such assessment and the level of reliance is mainly the role of experienced auditors rather than audit trainees. As part of conducting scoping meetings with clients at the acceptance/continuation stage, experienced auditors assess the complexity of clients, volume of transactions and the competency of employees involved in the process of financial statements preparation. Based on this assessment, experienced auditors decide or not to rely on internal auditors’ work. Audit budget and audit plan would be prepared taking into consideration the level of reliance on internal auditors where some audit steps might be excluded from being performed by external auditors. This whole assessment and planning process is prepared by experienced auditors rather than audit

trainees that may justify the significant difference in responses between audit trainees and experienced auditors.

There is a significant difference in responses between audit trainees and experienced auditors when it comes to meeting deadlines ethically when managers and seniors coordinate (Q17). Experienced auditors perceive that deadlines are ethically met when managers and senior auditors, both are considered experienced auditors, coordinate. Audit trainees have less tendency to agree on this assumption giving the fact their minimal involvement in budget setting and preparation. Normally, budget preparation is prepared by the engagement leader and the engagement manager based on the required skills and level of experience needed for every assignment. It is believed that coordination between the senior staff in budget preparation may lead to less pressure faced by audit team members. Audit trainees are not involved in any step of the budget preparation; rather they are notified only about their assignment and tasks to be accomplished. Probably experienced auditors prepare budgets and their main concern is to abide by the set budget. They might not take into consideration different factors facing audit trainees leading to increased pressure and justifying the significant difference in responses (Q17).

Table 5.11 – Comparative Mean responses/Performance Evaluation

Premature sign-off	Audit Trainees	Experienced Auditors	Mann-Whitney p-value
01. To progress their careers (get promotions) auditors tend to build, maintain and utilise a network of clients and internal relationships to achieve better performance rating.	1.98	2.02	0.88
02. Strict audit firm methodology is less exercised by senior auditors in order that they receive positive feedback from clients.	3.21	3.50	0.05*
03. When there is a risk of losing an audit assignment, partners tend to compromise rather than comply fully with audit firm methodology and auditing standards.	3.21	2.90	0.10
04. Auditors tend to prematurely sign-off an audit step when such sign-off may positively affect their performance evaluation.	3.23	2.77	0.01*#
05. Audit managers participate in the development of ways to meet client needs, increase clients' portfolio and have more assignments so that they get better performance from their superiors.	2.26	2.11	0.04*
06. Partners/Directors tend not to report all material control weaknesses to get assigned at a later stage to a non-audit assignment.	3.36	3.25	0.61
07. Auditors tend to rely less on subject matter experts even if the auditors themselves are not highly knowledgeable in a certain area to maintain a good recoverability rate.	2.87	2.77	0.49

Table 5.11 – Comparative Mean responses/Performance Evaluation (Continued)

Under-reporting of chargeable time			
01. An auditor expecting a promotion may exercise less professional scepticism if this would harm assignment profitability.	3.30	3.3	0.82
02. Auditors tend to choose the highest thresholds of sampling techniques for the sake of achieving a good recoverability rate.	2.89	2.65	0.17
03. Senior auditors who assist in proposal preparation and research tend to lower the budgeted hours to increase their chances of winning a proposal for better evaluation from their superiors.	2.64	2.67	0.94
04. Auditors are asked to under-report chargeable hours to achieve a good appraisal.	3.57	3.17	0.07
05. Auditors tend to work in their personal time rather than actual hours spent in order to maintain a profitable assignment.	2.25	2.22	0.71
06. Finishing an audit assignment with a good recoverability rate is one of the most important factors for a good appraisal and performance evaluation.	2.51	2.66	0.76
07. Audit managers delegate tasks based on the standard hourly rate of every team member rather than the skills needed for every cycle in order to achieve a good profitable assignments and consequently better appraisal.	2.68	2.98	0.20

1 strongly agree, 2 agree, 3 no opinion, 4 disagree, and 5 strongly disagree.

*p < .05(Mann-Whitney U test)

#t < .05(t-test)

5.4.3 Changes in Behaviour – Performance Evaluation

Table 5.11 highlights the significant differences in responses between audit trainees and experienced auditors and how they behave when they are expecting a performance evaluation. Experienced auditors have clearer perception that senior auditors do not apply less methodology for the sake of receiving positive feedback from a client (Q2). It can be concluded that audit trainees rely less on the client's feedback for the sake of receiving good feedback from clients when they are dealing with audit methodology issues. This question is related to the behaviour of a specific group of auditors only (experienced auditors); it is expected that this group of auditors is more conservative in replying about their behaviour.

Experienced auditors perceive that auditors tend to prematurely sign-off an audit step when such sign-off may positively affect their performance evaluation (Q4). It can be noted that senior auditors believe that receiving a good performance evaluation is a valid reason for them to commit dysfunctional behaviour through prematurely signing off an audit step. Audit trainees' responses almost indicate the opposite direction. Audit trainees may believe that the nature of work they are doing in their early stages in the audit profession is not that significant to have an impact on their performance evaluation; and consequently they believe it is not needed to commit dysfunctional behaviour. It can be due also to the fact that experienced auditors are the group of auditors who are involved in preparing performance evaluation to junior auditors. Experienced auditors might evidence dysfunctional behaviour while reviewing the work of audit trainees that was committed to receive a good performance appraisal and to meet senior staff expectations.

The level of participation by audit managers in the development of ways to meet client needs, increase clients' portfolio and have more assignments is perceived more by experienced auditors to be a significant factor to receive performance evaluation (Q5). Since audit trainees are not involved in increasing the clients' portfolio, it can be justified why there is such significant variance. Approaching clients and developing many ways to satisfy clients' needs is mainly the role of experienced auditors, specifically managers and above. Audit trainees are responsible for executing and performing audit procedures as planned by experienced auditors. Due to this fact, audit trainees might not feel they are involved in this process that might not affect their performance evaluation leading to this significant variance in responses (Q5).

5.5 Conclusion

The results of the above list of questions show clearly that dysfunctional behaviour is exercised by most auditors. Auditors' perception related to dysfunctional behaviour is analysed in three different scenarios: time budget, time deadline, and performance evaluation.

The survey highlights certain facts related to the accountancy profession. It is noted that audit firms are currently giving the vacancy priority for qualified auditors rather than auditors with graduate degrees. This can be supported by the decline in graduate degrees holders in the UK. It is also shown that the more auditors accumulate experience, the less audit firms can retain this group of auditors.

It was interesting to notice that auditors knowingly, and not unintentionally, commit dysfunctional behaviour, although the results show that auditors believe that they should not commit any under-reporting of chargeable time when facing time budget constraints. It is evidenced that auditors facing the three different scenarios tend to work

heavily in their personal time. One of the most common audit problems, “box-ticking exercise”, is not proven to be exercised heavily as per the survey results. It can be due to the increase in awareness among auditors to mitigate audit failures and to a better review by experienced auditors over the work of audit team members.

It is perceived that working in one's personal time might give an advantage for audit staff to finish an audit assignment. It is the responsibility of the audit firm to inform and to highlight this critical concern. Working in personal time may lead to indirect losses for the audit firm in the long term as the firm will not be aware of the actual hours spent on every assignment.

The survey was conducted in collaboration with the Big Four accountancy firms in the UK, and the audit methodology of these firms showed no significant impact of dysfunctional behaviour (mean and median 3). It can be concluded that audit methodology is being transmitted to auditors via massive number of training events where they got familiar with methodological issues. These trainings are helping all line auditors in minimising dysfunctional behaviour when it comes audit firm methodology.

The coordination between different lines of auditors in preparing budgets and allocating tasks showed a negative relationship with dysfunctional behaviour and to minimise such behaviour. It is proven that communication among auditors plays an important role in minimising dysfunctional behaviour. The communication with those charged of governance proved to have no significant impact on dysfunctional behaviour. It is implied that external auditors still prefer to do the job themselves with no heavy reliance on other parties, though it is allowed by the standards.

The Mann-Whitney test indicates significant differences between experienced auditors and audit trainees. It is shown that when a question is targeting a specific group of

auditors, the other group reply with less conservatism. Experienced auditors have a tendency to blame audit trainees more for dysfunctional behaviour and vice versa for audit trainees about experienced auditors. Also, some differences were due to the nature and responsibilities held by every type of auditor. It can be noted that by added experiences, auditors tend to perceive more dysfunctional behaviour acts.

In an agency relationship, a principal is expected to increase agent's efforts by more monitoring, but heavy monitoring has some hidden costs affecting interpersonal relationships and reducing social distance (Dickinson and Villeval, 2008). The increase monitoring through tight budgets, tight deadlines and performance evaluation procedures push agents (auditors) to act against principals' interest. The results align with the concept that managerial integrity and managerial competency are two types of failures that may restrict agents to behave in alignment with principals' objectives/interests. Managerial integrity is related to managers' behaviour that has a negative consequence on the appropriation of organisations' assets. Managerial competencies are related to hiding some information as a result of control deficiencies (Moldoveanu and Martin, 2001).

As a result of the above findings, the empirical evidence and results answer the research questions of this research that are related to auditors' behaviour. It also supports the stated hypotheses of this study. It is proven that there is a significant positive relationship between auditors' dysfunctional behaviour in relation to time budget, time deadline and performance evaluation factors. Interesting findings were noted and new factors were found to play a significant role in auditors' behaviour. Also, behaviour among two types of auditors have been noted to be different, mainly between

experienced auditors and audit trainees. These findings differentiate this empirical study from other studies conducted to analyse to auditors' behaviour.

Chapter Six
Level and Determinants of Audit Quality

Chapter Six

Level and Determinants of Audit Quality

6.1 Introduction

The purpose of this model is to investigate the determinants of audit quality associated with selected corporate governance and companies' characteristics in the UK context. In other words, the companies' selected corporate governance mechanisms, mainly boards of directors, audit committees, and ownership concentration are analysed to assess and study their relationships with audit quality. This study empirically investigates the relationship between companies' internal corporate governance mechanisms (role duality, board of directors and audit committee size and independence, and ownership concentration) and audit quality in the context of corporate governance in the UK.

The chapter is divided into four main sections. First, it covers the measurement and level of determinants of audit quality. Second, descriptive statistics and collinearity schedules are presented which lead to defining the data to be non-parametric data (not normally distributed) due to possible fluctuations in companies' financial and non-financial figures as a result of economic and financial crisis. Third, a regression of data collected is presented using the fixed-effects regression model with robust standard error term to analyse the level of significance between the dependent and independent variables, in addition to identifying the direction of the relationship (coefficient). Fourth, a sensitivity test is conducted to support the results obtained from the initial fixed-effects regression model. For sensitivity purposes, a random effects GLS regression is used. The same level of significance and insignificant relation was

obtained in addition to the same adjusted R-squared in both regression tests which supports the strength of the model.

6.2 Measuring Level and Determinants of Audit Quality

The model is examining the relationship between audit quality and corporate governance and companies' characteristics. The selected corporate governance characteristics are defined to be the independent variables. They are board of directors size, role duality, percentage of non-executive directors, audit committee size, audit committee number of meetings, audit committee independence, audit committee members having financial experts and block holders. Companies' characteristics, mainly selected financial characteristics and ratios, are defined to be control variables. Companies' characteristics are leverage, size, profitability, liquidity and line of industry. The table below summarises the measurement and proxies of independent variables used.

Table 6.1 Independent Variables Definition and Measurement

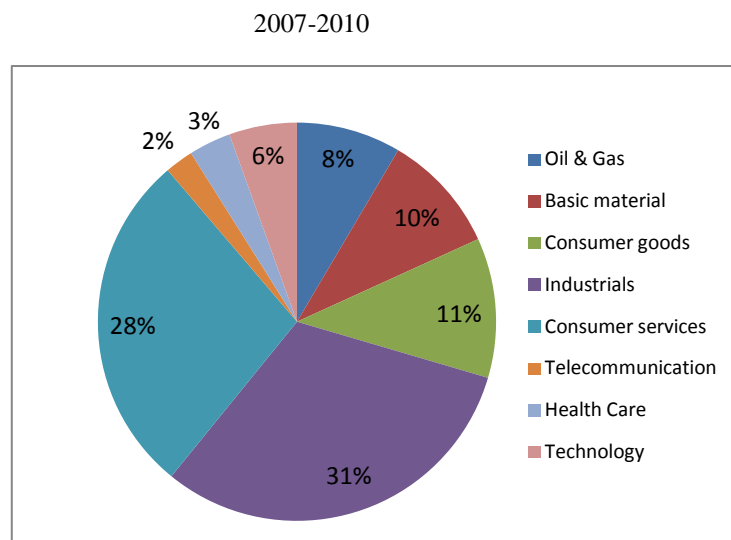
Variable	Description	Proxy/measurement
RD	Role duality	1 if the CEO is also chairman of the board, 0 otherwise;
NED	Non-Executive Directors	The percentage of outside directors of the board;
BS	Board of Directors size	number of members serving at board of directors;
ACS	Audit committee size	number of audit committee directors;
ACI	Audit Committee Independence	the percentage of outside directors on an audit committee;
ACM	Audit Committee Effectiveness	Frequency/number of audit committee meetings;

FINEXP	Financial literacy of audit committee directors	the percentage of audit committee members who are accounting financial experts as defined by UK CG code C.3.1;
OC	Ownership concentration/Block holders	Ratio of shareholders owning 5 per cent of equity against company's equity;
LnTA	Companies' size	log of total assets;
LEV	Leverage	the ratio of long-term debt over total assets;
ROA	Profitability	the ratio of net income over total assets;
LQD	Liquidity	the ratio of current assets over total assets;
InD	Industry	Type of industry from FTSE 350 schedules.

6.2.1 Descriptive Statistics

The sample of this model is made up of companies listed on the Financial Times Stock Exchange (FTSE 350). Excluded from the list of companies are financial institutions and utilities industries due to their intense regulations and to have a homogenous sample. Four years' data was collected from annual reports of 907 companies excluding omitted and missing data.

Figure 6.1 describes the sample of this model based on line of industry.



As noticed from the above pie chart, 59 per cent of the companies in the sample are industrial and consumer service companies. The remainder are consumer goods, basic material, oil and gas, technology, healthcare and telecommunication companies respectively.

To ensure a normal distribution of companies' line of industry over the four years, pie charts 6.1.1, 6.1.2, 6.1.3, 6.1.4 support the consistent distribution over the sampled period.

Figure 6.1.1 2007

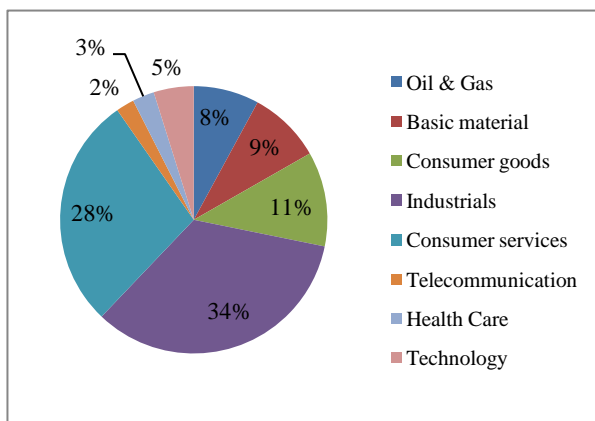


Figure 6.1.2 2008

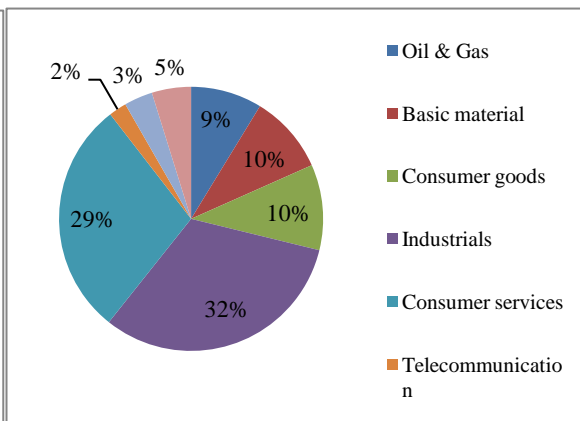


Figure 6.1.3 2009

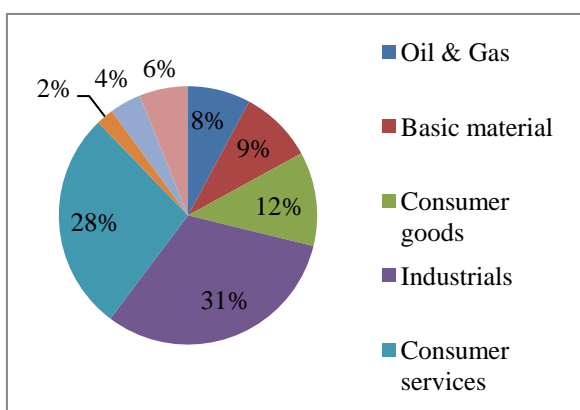
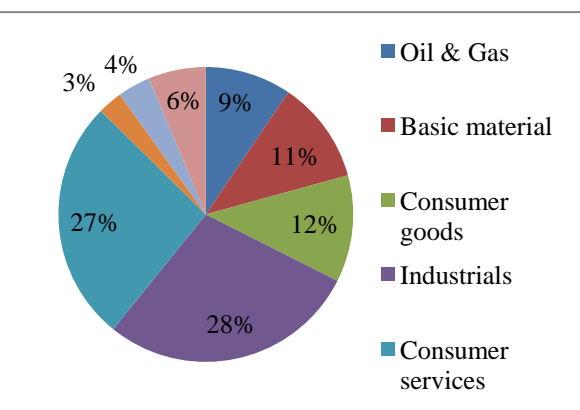


Figure 6.1.4 2010



Companies were classified based on Financial Times Stock Exchange (FTSE) and Dow Jones Industrial (DJI) Industry Classification Benchmark (ICB) as follows:

FTSE / DJI INDUSTRY CLASSIFICATION BENCHMARK (ICB)		
0001	Oil and Gas	77
1000	Basic Materials	88
2000	Industrials	285
3000	Consumer Goods	103
4000	Health Care	31
5000	Consumer Services	253
6000	Telecommunications	21
9000	Technology	50
		908

Source: FTSE Client Services

Table 6.2 summarises the descriptive statistics of the second model.

Table 6.2 Descriptive Statistics

	Minimum (Maximum)	Mean (Median)	Standard Skewness	Standard Kurtosis	Standard Deviation
AF	28,000 39,649,416	1,854,190 (700,000)	5.792	43.967	3,918,626
LnAF	10.000 (17.000)	13.551 (13.000)	0.271	3.031	1.299
RD	0.000 (1.000)	0.042 (0.000)	4.576	21.938	0.200
BS	5.000 (22.000)	9.340 (9.000)	1.110	4.881	2.485
NED	0.000 1.000	0.584 (0.570)	0.024	3.405	0.126
ACS	2.000 (8.000)	3.629 (3.000)	1.236	5.339	0.862
ACI	0.000 (1.000)	0.855 (1.000)	-1.906	5.156	0.300
ACM	1.000 (15.000)	4.031 (4.000)	2.362	13.697	1.462
FINEXP	0.000 1.000	0.348 (0.330)	1.416	5.990	0.181
OC	0.000 (1.000)	0.294 (0.260)	0.760	3.263	0.194
TA (£'000)	34,130 (206,042,797)	6,362,582 (1,408,132)	6.733	54.936	19,600,000
LnTA	10.000 (19.000)	14.313 (14.000)	0.611	3.426	1.494
ROA	-1.270 (1.140)	0.070 (0.060)	-0.361	39.042	0.118
LQD	0.030 (0.980)	0.395 (0.370)	0.620	2.954	0.207
LEV	0.000 (1.180)	0.298 (0.270)	0.706	3.530	0.193
OG	0.000 (1.000)	0.085 (0.000)	2.981	9.885	0.279
BMAT	0.000 (1.000)	0.097 (0.000)	2.725	8.425	0.296
CoNGDS	0.000 (1.000)	0.113 (0.000)	2.438	6.943	0.317
Indus	0.000 (1.000)	0.313 (0.000)	0.808	1.652	0.464
ConSeR	0.000 (1.000)	0.279 (0.000)	0.988	1.975	0.449
Telecomm.	0.000 (1.000)	0.023 (0.000)	6.345	41.262	0.150
HC	0.000 (1.000)	0.034 (0.000)	5.131	27.326	0.182
Tech.	0.000 (1.000)	0.055 (0.000)	3.899	16.198	0.228

Regarding standard kurtosis statistics, it shows that the data has a non-parametric nature (not normally distributed). To define a parametric data, kurtosis statistics are said to be between ± 3 (Hannifa and Hudaib, 2006; Gujarati, 1995). Kurtosis statistics results varied between 1.652 and 41.262. As for standard skewness statistics, data is defined to be normally distributed if the results are between ± 1.96 (Hannifa and Hudaib, 2006). The standard skewness statistics results ranged between -0.361 and 6.345. These results led to define the four years' data to be non-parametric data. As a result of this non-parametric data nature, a spearman collinearity test is used to test for multi-collinearity among variables. Moreover, Pearson collinearity test (Table 6.4), which is normally used to test parametric data, is used to support Spearman test results.

The non-parametric nature of the collected data may be a result of the economic financial crisis that leads to major variances in financial and non-financial results. Due to this fact, robust analysis is used to test the hypotheses.

The median of audit fees is 700 thousand British Pounds. Among governance variables, the median of role duality (RD) indicates that the majority of companies do not have major role duality issues between the chairman of the board and the chief executive officer. The average size of board of directors (BS) is nine board members. The mean value of non-executive directors (NED) is 0.584 indicating that almost more than half of the companies had non-executive directors serving on the board of directors.

The median of audit committee members is three. This explains that the majority of companies tested complied with the governance code to establish audit committees of a minimum of three members. But it can be noticed also that some companies had two audit committee members which is allowed for smaller companies. For audit committee

independence (ACI), a median result of one indicates that the majority of companies tested have independent audit committee members.

Among governance variables that measure audit committee effectiveness is audit committee number of meetings (ACM). Audit committee meetings varied significantly in different companies. Some audit committees met once per year while other audit committees met 15 times per year. The financial literacy of audit committee directors (FINEXP) results indicate that some companies do not have any audit committee members with a financial expertise; while other companies have audit committees with all members possessing financial expertise. The ownership concentration (OC) median is 26 per cent. This means that the average block-holders owning more than five per cent of company's ordinary shares is 26 per cent.

As for control variables, 27 per cent is the average leverage ratio while the average profitability ratio (ROA) is 6 per cent. The median of companies' size is £1,408,132thousands British Pounds. The liquidity results show a big variance between highly liquid companies (98 per cent) and low liquid companies (3 per cent).

Table 6.3 Yearly Descriptive Statistics

	2007		2008		2009		2010	
	Min. (Max.)	Mean (Median)	Min. (Max.)	Mean (Median)	Min. (Max.)	Mean (Median)	Min. (Max.)	Mean (Median)
AF	32,000 (31,600,000)	1,614,057 (700,000)	28,000 (39,600,000)	2,012,622 (800,000)	31,000 (35,300,000)	1,906,704 (700,000)	32,000 (34,500,000)	1,881,898 (700,000)
LnAF	10.000 (17.000)	13.475 13.000	10.000 (17.000)	13.598 (14.000)	10.000 (17.000)	13.586 (13.000)	10.000 (17.000)	13.540 (13.000)
RD	0.000 (1.000)	0.048 0.000	0.000 (1.000)	0.048 (0.000)	0.000 (1.000)	0.039 (0.000)	0.000 (1.000)	0.031 (0.000)
BS	5.000 (22.000)	9.519 9.000	5.000 (20.000)	9.454 (9.000)	5.000 (20.000)	9.213 (9.000)	5.000 (18.000)	9.171 (9.000)
NED	0.250 (0.900)	0.570 0.560	0.200 (0.920)	0.582 (0.570)	0.290 (1.000)	0.590 (0.570)	0.000 (0.910)	0.594 (0.590)
ACS	2.000 (8.000)	3.665 3.000	2.000 (7.000)	3.624 (3.000)	2.000 (7.000)	3.595 (3.000)	2.000 (7.000)	3.630 (3.500)
ACI	0.000 (1.000)	0.868 1.000	0.000 (1.000)	0.870 (1.000)	0.000 (1.000)	0.842 (1.000)	0.000 (1.000)	0.839 (1.000)
ACM	1.000 (14.000)	3.969 4.000	2.000 (13.000)	3.986 (4.000)	2.000 (13.000)	4.104 (4.000)	1.000 (15.000)	4.063 (4.000)
FINEXP	0.000 (1.000)	0.349 0.330	0.000 (1.000)	0.357 (0.330)	0.000 (1.000)	0.336 (0.330)	0.000 (1.000)	0.347 (0.330)
OC	0.000 (1.000)	0.283 0.250	0.000 (0.920)	0.301 (0.270)	0.000 (0.920)	0.293 (0.260)	0.000 (0.920)	0.297 (0.260)
TA (£'000)	34,130 (135,000,000)	5,048,131 (1,206,200)	48,856 (196,000,000)	6,650,742 (1,524,800)	53,743 (181,000,000)	6,398,642 (1,401,182)	50,743 (206,000,000)	7,372,034 (1,503,089)
LnTA	10.000 (19.000)	14.202 14.000	11.000 (19.000)	14.336 (14.000)	11.000 (19.000)	14.308 (14.000)	11.000 (19.000)	14.405 (14.000)
ROA	-0.380 (0.660)	0.086 0.070	-1.270 (0.520)	0.056 (0.060)	-0.180 (0.790)	0.057 (0.050)	-0.170 (1.140)	0.080 (0.060)
LQD	0.030 (0.980)	0.409 0.390	0.030 (0.980)	0.392 (0.370)	0.040 (0.970)	0.388 (0.355)	0.040 (0.960)	0.390 (0.365)
LEV	0.000 (0.990)	0.289 0.270	0.000 (1.040)	0.304 (0.290)	0.000 (1.180)	0.309 (0.285)	0.000 (0.900)	0.286 (0.260)
OG	0.000 (1.000)	0.079 0.000	0.000 (1.000)	0.087 (0.000)	0.000 (1.000)	0.078 (0.000)	0.000 (1.000)	0.094 (0.000)
BMAT	0.000 (1.000)	0.088 0.000	0.000 (1.000)	0.096 (0.000)	0.000 (1.000)	0.091 (0.000)	0.000 (1.000)	0.112 (0.000)
CoNGDS	0.000 (1.000)	0.114 0.000	0.000 (1.000)	0.104 (0.000)	0.000 (1.000)	0.117 (0.000)	0.000 (1.000)	0.117 (0.000)
Indus	0.000 (1.000)	0.339 0.000	0.000 (1.000)	0.318 (0.000)	0.000 (1.000)	0.313 (0.000)	0.000 (1.000)	0.283 (0.000)
ConSeR	0.000 (1.000)	0.281 0.000	0.000 (1.000)	0.288 (0.000)	0.000 (1.000)	0.278 (0.000)	0.000 (1.000)	0.265 (0.000)
Telecomm.	0.000 (1.000)	0.022 0.000	0.000 (1.000)	0.021 (0.000)	0.000 (1.000)	0.021 (0.000)	0.000 (1.000)	0.027 (0.000)
HC	0.000 (1.000)	0.026 0.000	0.000 (1.000)	0.034 (0.000)	0.000 (1.000)	0.039 (0.000)	0.000 (1.000)	0.036 (0.000)
Tech.	0.000 (1.000)	0.048 0.000	0.000 (1.000)	0.048 (0.000)	0.000 (1.000)	0.060 (0.000)	0.000 (1.000)	0.063 (0.000)

Table 6.3 presents the yearly descriptive statistics of data collected for four years. It can be noted that the median of the audit fees over the four years is between 700,000-800,000. The highest amount of audit fees paid by UK listed companies is in 2008 (£ 39 million). Board size is on average nine members over the four years. Regarding non-executive directors, companies are in full compliance with the non-executive criteria in 2010. All boards of directors in 2010 have at least one board member considered non-executive. It is worth mentioning that, on average, non-executive directors constitute half of boards of directors.

The median and mean of audit committee size is three. It can be noted that all companies have audit committees during the four years period (2007-2010). Although some audit committees do not constitute independent directors, the median results show that the majority of audit committee members are considered independent. The average number of audit committees' meetings show that they meet four times a year even though some audit committees are more active compared to others.

All audit committees, on average, constitute at least one member considered to be financial expert. It can be noted that some audit committees are not complying fully with the governance code since, up to 2010; there are still audit committees with no financial experts' directors.

Table 6.4 Companies' Characteristics

	OG	BMAT	CoNGDS	Indus	ConSeR	Telecomm.	HC	Tech.	Pooled	
RD	-	8	1	9	13	4	0	3	38	4%
ACI	2	1	6	17	22	3	0	3	54	6%
FINEXP	8	0	2	6	14	2	0	4	36	4%

Table 6.4 presents some facts about companies' characteristics. It can be noted that four per cent of companies are experiencing a role duality situation where one individual is

holding the positions of chief executive officer and chairman titles. Six per cent of companies established audit committees with no existence of independent audit committee directors. For financial experts, only four per cent of audit committees are established with no existence of financial experts.

6.2.2 Results

The Spearman correlation matrix is used to test multicollinearity assumption. The Spearman correlation matrix is reported in Table 6.5.

It can be noticed that there are no significant multicollinearity problems among variables as correlations values are relatively low. It is said that a correlations value up to 80 per cent is accepted (Gujarati, 1995). The Variance Inflation Factor (VIF) is included as additional evidence that no major multicollinearity problems exist. The rule of thumb for VIF values is said that any variable with a <10 value is considered highly collinear with other independent variables (O'brien, 2007).

It is also useful to highlight the correlation between explanatory variables that will be used in the regression tests at a later stage. It can be noted that companies' size (measured by log of total assets) is significantly correlated with board of directors and audit committee explanatory variables (BS, NED, ACI, ACS, ACM, and FINEXP). It is expected that the bigger companies are, the wider their board of directors and audit committees. It can be also noted that profitability (measured by ROA) is significantly correlated with FINEXP. It is expected that the more profitable companies are, the better their ability to hire/assign financial experts within audit committees.

Table 6.5 – Correlations

Spearman correlation matrix for dependent and independent variables (n=908)

	VIF	LnAF	RD	BS	NED	ACS	ACI	ACM	FINEXP	OC	LnTA	ROA	LQD	LeV	OG	BMaT	CoNGDS	Indus	ConSeR	Telecom	HC	Tech	
LnAF		1.000																					
RD	1.05	-0.091*	1.000																				
BS	1.72	0.428*	-0.003	1.000																			
NED	1.30	0.270*	-0.042	0.100*	1.000																		
ACS	1.49	0.316*	-0.071*	0.454*	0.219*	1.000																	
ACI	1.11	0.073*	0.024	0.134*	0.192*	0.018	1.000																
ACM	1.33	0.410*	-0.012	0.312*	0.253*	0.247*	0.145*	1.000															
FINEXP	1.14	-0.160*	0.063	-0.157*	-0.088*	-0.508*	0.015	-0.108*	1.000														
OC	1.27	-0.286*	0.086*	-0.177*	-0.038	-0.145*	-0.112*	-0.085*	0.042	1.000													
LnTA	2.25	0.670*	-0.020	0.520*	0.237*	0.332*	0.131*	0.367*	-0.182*	-0.309*	1.000												
ROA	1.07	-0.095*	0.042	-0.050	0.040	-0.021	0.008	-0.016	0.040	-0.047	-0.243*	1.000											
LQD	1.47	-0.119*	-0.007	-0.181*	-0.041	-0.046	0.031	-0.010	0.044	-0.006	-0.320*	0.224*	1.000										
LEV	1.39	0.169*	-0.031	0.129*	0.031	0.055	0.035	0.033	-0.075*	-0.154*	0.310*	-0.235*	-0.447*	1.000									
OG	3.32	-0.079*	-0.064	0.092*	-0.031	0.014	0.018	-0.011	-0.073*	0.003	-0.013	0.017	-0.016	-0.067*	1.000								
BMAT	3.71	0.036	0.080*	0.026	0.182*	-0.011	0.062	0.044	0.102*	0.161*	0.092*	0.088*	-0.101*	-0.070*	-0.099*	1.000							
CoNGDS	4.08	0.008	-0.057	0.073*	-0.046	0.079*	0.075*	-0.006	-0.012	-0.053	0.119*	-0.054	0.119*	-0.007	-0.108*	-0.117*	1.000						
Indus	7.34	0.072*	-0.035	-0.152*	-0.145*	-0.086*	0.011	-0.084*	0.038	-0.117*	-0.200*	0.024	0.234*	0.024	-0.204*	-0.221*	-0.242*	1.000					
ConSeR	7.01	-0.076*	0.030	0.038	0.018	-0.001	-0.074*	-0.027	-0.068*	0.056	0.103*	-0.089*	-0.248*	0.194*	-0.188*	-0.204*	-0.223*	-0.420*	1.000				
Telecomm	1.77	0.119*	0.114*	0.121*	0.016	0.125*	-0.155*	0.102*	-0.077*	-0.023	0.128*	-0.056	-0.133*	0.021	-0.047	-0.051	-0.055	-0.104*	-0.096*	1.000			
HC	1.65	0.062	-0.039	0.006	0.119*	0.057	0.031	0.117*	0.042	-0.089*	0.008	0.027	0.005	0.021	-0.057	-0.062	-0.067*	-0.127*	-0.117*	-0.029	1.000		
Tech	2.60	-0.089*	0.022	-0.096*	0.019	-0.067*	-0.008	0.033	0.041	0.080*	-0.155*	0.076*	0.082*	-0.273*	-0.073*	-0.079*	-0.087*	-0.163*	-0.150*	-0.037	-0.045	1.000	

* Significance at confidence level of 95%

Table 6.6 – Correlations

Pearson correlation matrix for dependent and independent variables (n=908)

	LnAF	RD	BS	NED	ACS	ACI	ACM	FINEXP	OC	LnTA	ROA	LQD	LeV	OG	BMAT	CoNGDS	Indus	ConSeR	Telecomm	HC	Tech	
LnAF	1.000																					
RD	-0.093*	1.000																				
BS	0.488*	-0.029	1.000																			
NED	0.261*	-0.017	0.081*	1.000																		
ACS	0.344*	-0.070*	0.428*	0.245*	1.000																	
ACI	0.069*	0.033	0.100*	0.177*	0.031	1.000																
ACM	0.424*	-0.031	0.326*	0.259*	0.232*	0.137*	1.000															
FINEXP	-0.087*	0.074*	-0.045	0.019	-0.277*	0.030	-0.062	1.000														
OC	-0.264*	0.103*	-0.085*	0.010	-0.140*	-0.085*	-0.080*	0.016	1.000													
LnTA	0.710*	-0.029	0.556*	0.264*	0.374*	0.110*	0.404*	-0.083*	-0.290*	1.000												
ROA	-0.104*	-0.009	-0.060	0.060	-0.040	0.018	-0.020	0.071*	0.030	-0.169*	1.000											
LQD	-0.171*	-0.011	-0.162*	-0.074*	-0.085*	0.022	-0.036	0.059	-0.026	-0.307*	0.154*	1.000										
LEV	0.111*	-0.028	0.120*	0.005	0.048	0.038	0.010	-0.051	-0.121*	0.240*	-0.140*	0.415*	1.000									
OG	-0.046	-0.063	0.099*	-0.031	0.020	0.029	0.062	-0.062	0.008	0.035	0.049	0.002	-0.072*	1.000								
BMAT	0.047	0.080*	0.015	0.218*	-0.001	0.079*	0.052	0.115*	0.189*	0.114*	0.019	-0.111*	-0.082*	-0.099*	1.000							
CoNGDS	0.014	-0.058	0.056	-0.037	0.106*	0.065	-0.027	-0.007	-0.073*	0.111*	-0.061	0.185*	-0.021	-0.108*	-0.117*	1.000						
Indus	0.048	-0.034	-0.177*	-0.162*	-0.098*	0.006	-0.104*	0.023	-0.148*	-0.206*	0.011	0.181*	-0.004	-0.204*	-0.221*	-0.242*	1.000					
ConSeR	-0.073*	0.030	0.070*	0.005	-0.014	-0.078*	-0.028	-0.069*	0.082*	0.054	-0.019	-0.244*	0.238*	-0.188*	-0.204*	-0.223*	-0.420*	1.000				
Telecomm	0.110*	0.114*	0.115*	0.016	0.109*	-0.162*	0.047	-0.040	0.007	0.159*	-0.030	-0.122*	0.026	-0.047	-0.051	-0.055	-0.104*	-0.096*	1.000			
HC	0.060	-0.039	0.013	0.115*	0.067*	0.034	0.133*	0.048	-0.090*	0.026	-0.012	-0.013	0.002	-0.057	-0.062	-0.067*	-0.127*	-0.117*	-0.029	1.000		
Tech	-0.095*	0.022	-0.084*	0.023	-0.070*	-0.007	0.028	0.008	0.071*	-0.157*	0.043	0.090*	-0.250*	-0.073*	-0.079*	-0.087*	-0.163*	-0.150*	-0.037	-0.045	1.000	

* Significance at confidence level of 95%

Test of Hypotheses

Table 6.7 Hausman Test

	Fixed (b)	Random (B)	Difference (b –B)
RD	-0.364	-0.361	-0.003
BS	0.079	0.079	-0.000
NED	0.911	0.917	-0.005
ACS	0.017	0.016	0.001
ACI	-0.191	-0.189	-0.001
ACM	0.112	0.112	-0.000
FINEXP	-0.209	-0.209	-0.000
OC	-0.273	-0.270	-0.003
LnTA	0.516	0.515	0.000
ROA	0.029	-0.005	0.035
LQD	-0.095	-0.093	-0.002
LeV	-0.378	-0.369	-0.008
OG	-0.498	-0.403	-0.095
BMAT	-0.221	-0.128	-0.093
CoNGDS	-0.288	-0.194	-0.094
Indus	0.335	0.432	-0.096
ConSeR	-0.299	-0.203	-0.095
Telecomm	-0.188	-0.095	-0.092

b=consistent under H_0 and H_a ;

B=inconsistent under H_a , efficient under H_0

Test: H_0 - difference in coefficient not systematic

Chi(2)= 1.85

Prob>ch2= 1.000

The Hausman test is presented to justify the use of either random-effects regression (GLS) or the fixed-effects regression test. If the result shows a rejection of the null hypothesis (H_0), fixed effects is recommended. Otherwise, the random-effects regression (GLS) is to be used as the main regression test. As mentioned above, the result shows that the null hypothesis cannot be rejected since the coefficients differences are not systematic. Accordingly, the random-effects regression is used.

OLS Cross Sectional Panel Regression Using Robust Standard Error
(Random - Effects GLS regression)

Table 6.8

LnAF	Coefficient	z-statistics
Intercept	4.846	14.680***
RD	-0.361	-3.230***
BS	0.079	9.130***
NED	0.917	12.480***
ACS	0.016	0.940
ACI	-0.190	-1.490
ACM	0.112	5.260***
FINEXP	-0.209	-2.800**
OC	-0.270	-2.450**
LnTA	0.515	33.230***
ROA	-0.006	-0.020
LQD	-0.093	-0.820
LEV	-0.370	-1.340
OG	-0.403	-3.340***
BMAT	-0.128	-1.250
CoNGDS	-0.194	-2.140**
Indus	0.432	4.830***
ConNSeR	-0.204	-1.990**
Telecomm.	-0.095	-0.400
HC	0.097	0.470
Tech.	(omitted)	
R-squared		0.601
F-statistic		10.000***
Number of groups		4
N		908

*p < .10, **p < .05, ***p < .01

Table 6.8 reports the result of the regression model. Multiple regressions with Ordinary Least Square (OLS) time series panel regression is used. As per the results shown in skewness and kurtosis statistics, data is defined to be of a non-parametric nature (not normally distributed); OLS is used with a robust standard error to have the OLS fits with non-parametric data. The R-squared of the regression model (0.601) indicates the model fit which aligns with previous studies, but with different scope, related to the concept of audit quality (Basiruddin, 2011:0.789; Carcello et al., 2002:0.69 "Adjusted R²"; O'sullivan, 2000: 0.803; Zaman et al., 2011:0.718).

Consistent with the expectation, there is a negative significant relationship between audit quality and role duality. It is concluded that when a chief executive officer is not holding the chairman of the board of directors' tasks and responsibilities, audit quality would be better. It is due to the fact that role duality may give excessive power to the individual holding the two positions which may lead to lower audit quality. This conclusion aligns with the Bliss et al. (2001) study. They conclude that intensive audit work is required when role duality exists. The result aligns with the agency theory concept which identifies that non-role duality of CEO and chairman of the board positions help to reduce the gap between directors and external auditors (Uang et al., 2006). As a result of role duality, the decision-making process is facilitated easily towards a good stewardship role. But on the other hand, this ease of decision making, due to certain corporate governance characteristics, may harm shareholders' interest as it is considered to be working to the benefit of agents rather than principals (Donaldson and Davis, 1991).

This reduced gap consequently helps to increase audit quality. Companies with weak corporate governance tend to hire lower audit quality auditors (Lin and Liu, 2009). This contradicts with H2_a since weak corporate governance is defined by having RD. Such companies (Chinese sample) tend to protect the vagueness advantage for having weak corporate governance by hiring lower quality auditors.

Also, consistent with expectation, there is a positive significant relationship between Non-Executive Directors (NED) and audit quality. This result indicates that the more a board of directors is comprised of non-executive directors, the more audit quality can be achieved. NED is defined to be directors taking part in the board with more independence than executive directors. In theory, more agency cost through heavy monitoring from directors, leads to a variance of audit quality (Dickinson and Villeval, 2008). The results align with the argument that agency cost is minimised by the existence of more non-executive directors that will help in reducing the gap with external auditors (Uang et al., 2006) and consequently better audit quality. Also, Chen and Sun (2007) concluded that more independent directors demand better auditor reputation, a reputation of better audit quality. Uang et al. (2006) stated that the NED variable shows an insignificant role in reducing dissonance between external auditors and management regarding going-concern disclosures. The sample of this study was limited to companies with going-concern disclosures. This research sample is made up of FTSE 350-listed companies where the majority of companies do not have any going concern issues.

The last proxy of board of directors shows a positive significant relationship between board of directors size and audit quality. This result supports the expected relationship between board of directors size and audit quality (H2_c). The bigger board of directors,

the more diversified backgrounds boards will possess and consequently more communication with external auditors to achieve better audit quality. This aligns with the argument stating that companies with a larger board of directors were likely to dismiss Andersen at an earlier stage before the Enron scandal (Chen and Zhou, 2007) as larger boards tend to achieve better audit quality by dismissing risky auditors. In theory, larger boards have an advantage of being more diversified and possess different technical and educational backgrounds (Zahra and Pearce, 1989). Canyon and Peck (1998) mention that companies with larger boards face higher agency cost leading to more agency problems. Dey (2008) mentions that due to competitive pressure on capital, goods, and labour markets, companies facing high agency problems have good corporate governance mechanisms. In the current research, the results show that bigger boards are related to an increase in audit quality. This is due to the fact that the Canyon and Peck's (1998) study analysed board of directors' size against corporate performance. Corporate performance is an endogenous variable within the company itself while audit quality is performed by an external body (external auditors) and better audit quality is achieved through this statistical relationship with corporate governance mechanisms and companies characteristics.

Audit committee size, audit committee independence, audit committee meetings, and audit committee financial experts are selected as characteristics of audit committees to be analysed against audit quality. Contrary to the expectation (H2_d), there is a positive but insignificant relationship between audit committee size and audit quality. In theory, audit committees are established by the board of directors (UK corporate Governance code, 2010). All audit committee members are initially members of the board of directors. This result is consistent with Carcello and Neal's (2000) study which stated

that there is no significant relationship between audit committee size and auditor reporting.

Contrary to the expectation also (H2e), audit committee independence has no significant influence on audit quality. This result aligns with Kent and Stewart's (2008) study that showed an insignificant relationship between audit committee independence and level of disclosures; which are an essential part of audited financial statements. Also, Piot and Janin (2007) stated that audit committee independence has no significant relationship with earning management. This is in contrast to the US finding (Carcello and Neal, 2003) that showed a significant role of audit committee independence when receiving a going-concern audit opinion. This result questions the role of independent audit committee directors in the British model of corporate governance. Specifically, the “collegiality” principle stated in the Smiths report (2003) that that audit committees (sub-committees of the board of directors) have a consultative role that does not substitute board responsibilities. Boards of directors are collectively responsible for financial reporting quality which “hampers” the individual monitoring incentives of independent audit committee directors.

Consistent with the expectation (H2f), there is a positive significant relationship between audit committee frequency of meetings and audit quality. In other words, effective audit committees, measured by number of meetings, lead to an increase of audit quality. This result is due to the nature of audit committees' tasks that are closely inter-related with external auditors' work. Chen and Suny (2007) indicate that more active audit committees assign Big Four external auditors, perceived as better auditor quality. Also, the levels of disclosures are positively related to the frequency of audit committee meetings (Kent and Stewart, 2008). More frequent audit committee meetings

help to reduce potential financial reporting problems (Farber, 2005). This result aligns with the theoretical agency framework where audit committee meet more to mitigate potential agency problems (Sharma et al., 2009) and to maintain good quality audit.

Contrary to the expectation (H2_g), the random-effects regression results show a negative significant relationship between audit quality and audit committee members with financial expertise. This result indicates that external auditors incur additional time to achieve a better quality to cover the absence and gap of financial experts within an audit committee. One of the main objectives for establishing audit committees is to enhance the monitoring tool of shareholders over management from an agency theory perspective. The attributes of audit committees cannot be ignored since audit committees are comprised of individuals. Financial experts are expected to contribute to the effectiveness of monitoring (Kalbers and Fogarty, 1993). Thus, in the absence of financial experts within audit committees; that the role of external auditors is considered an important factor in the classic agency problem between shareholders and management (Habib and Bhuiyan, 2011) and to compensate the absence of financial experts. The existence of financial experts may help auditors to incur less time on certain audit cycles as they can rely on the work of internal auditors (ISA 610) who are required to meet at least annually with the audit committee (Smiths report, 2003).

Consistent with the expectation (H2_h), there is a negative significant relationship between ownership concentration and audit quality. Block holders are defined to be shareholders owning a minimum of five per cent of a company's shares (Fan and Wong, 2005; Lin and Liu, 2009; Dao et al, 2008). Block holders are perceived to possess a controlling and voting power which enables them to enforce corporate contracts with different parties (Fan and Wong, 2005). This result indicates that since block holders

have a controlling power and more access to companies' information, they do not demand excessive work from external auditors as all data needed is obtained from the company itself. Subsequently, when block holders/ownership concentration exists, higher audit quality may not be very demanding from those block holders. This result aligns with Lin and Liu's (2009) where there is a positive significant relationship between ownership concentration and a change to a lower audit quality auditor. Also, audit fees are higher in companies characterised by more agency problems. One of these agency problems is the existence of ownership concentration (Fan and Wong, 2005). Such agency problems cannot be resolved by an internal control mechanism but through a reputable external auditor. A reputable auditor is expected to bill higher audit fees and to produce a better quality audit. Big Four audit firms are perceived to provide better audit quality and charge higher audit fees than non-Big Four audit firms due to their competence and independence (Khurana and Roman, 2004).

As for control variables, companies' size (LnTA) results in a positive significant relationship with audit quality. It can be concluded that larger companies demand better audit quality due to the fact that larger companies may consist of a larger number of shareholders than smaller companies. They tend to demand better audit quality for better reputation among stakeholders. This better audit quality helps large companies to obtain and maintain a good line of credit with financial institutions (Francis and Wilson, 1988; Haskin and Williams, 1990). Profitability (ROA), liquidity (LQD), and leverage (LEV) show no significant statistical relationship with audit quality. Contrary to the results of Chenet et al. (2010) indicate that leverage shows to have a negative significant relationship with firm performance. Also contrary to the results, executive compensation and remuneration is positively and significantly affected by profitability

(Basu, 2007). Along with the results of liquidity variables, it has been noted that there is no significant relationship between the change of auditors and liquidity levels.

As for Line of industry; oil and gas, consumer services and consumer goods line of industries have a negative significant relationship with audit quality. Such industries are expected to have better governance mechanisms that may allow them to demand less from auditors and rely more on their internal monitoring processes. Industrial companies show to have positive significant relationship with audit quality. It can be noted that industrial companies demand more audit quality which is evidenced in the positive significant direction along with audit fees.

6.2.3 Sensitivity Analysis

OLS Cross Sectional Panel Regression Using Robust Standard Error

(Fixed-Effects regression)

Table 6.9

LnAF	Coefficient	t-statistics
Intercept	4.937	20.210***
RD	-0.364	-3.230**
BS	0.080	9.540***
NED	0.911	13.900***
ACS	0.017	0.980
ACI	-0.192	-1.520
ACM	0.112	5.170**
FINEXP	-0.210	-2.980*
OC	-0.273	-2.400*
LnTA	0.516	30.330***
ROA	0.029	0.120
LQD	-0.095	-0.840
LEV	-0.378	-1.380
OG	-0.498	-5.450**
BMAT	-0.221	-1.240
CoNGDS	-0.288	-2.160
Indus	0.335	2.790*
ConNSeR	-0.299	-2.380*
Telecomm.	-0.188	-1.070
HC	(omitted)	
Tech.	-0.095	-0.460
R-squared		0.601
Number of groups		4
N		908

*p < .10, **p < .05, ***p < .01

The main objective of the sensitivity test is to investigate the robustness of the study which includes some forms of statistical modelling. Initially, the random-effects GLS panel regression has been used to assess the relationship between audit quality and corporate governance and companies' characteristics. The panel data helps in controlling for variables not observed or measured in business practices across companies or variables that may change over the time period but not in a consistent manner. The random-effect regression model (GLS) assumes that variations across entities are random and uncorrelated within the independent variables included in a model. The fixed-effects regression, which has been used as a sensitivity test, controls for time-invariant differences. It helps to mitigate for any biased assumptions in the estimated coefficients as a result of omitted time-invariant characteristics (Torres-Reyna, 2010).

The results of the fixed-effects regression support the results obtained from the random-effects GLS regression. It showed the same significant and insignificant relationship between audit quality and its determinants.

6.2.3.1 Additional Tests

2SLS Regression Test

Table 6.10

LnAF	Coefficient	z-statistics
Intercept	5.682	9.500***
RD	-0.337	-1.570
BS	0.137	5.860***
NED	1.867	4.020***
ACS	-0.055	-1.030
ACI	-0.339	-2.330**
ACM	0.097	3.630***
FINEXP	-0.565	-2.060**
OC	-0.594	-2.240**
LnTA	0.432	10.110***
ROA	-0.523	-0.520
LQD	-0.335	-1.450
LEV	-0.512	-1.990**
OG	-0.265	-1.370
BMAT	-0.031	-0.170
CoNGDS	0.010	0.050
Indus	0.579	3.560***
ConNSeR	-0.164	-0.980
Telecomm.	0.158	0.560
HC	0.225	0.950
Tech.	(omitted)	
R-squared		0.588
N		619

*p < .10, **p < .05, ***p < .01

Table 6.10 presents the statistical relationship among variables using the 2SLS regression test. It can be noted that the number of observations in the 2SLS regression test are lesser than other regression tests (n=619). This is due to the fact that the lagged technique has been used as part of running the 2SLS regression test. Through the use of Durbin-Wu Hausman test, the industry and control variables are lagged. Accordingly, an average of one year will be excluded. What is meant by "Lag model" is that the regression is used to predict current value of dependent variable based on the current and past values of explanatory variables. D.S.G. Bollock (2010) mentions that the lagged technique is used to retain the validity of ordinary Least-square regression.

Except for RD and ACI; all independent variables show the same results to those stated for the results reached since it is better to rely on ordinary least square tests when variables are exogenous (Soderbom, 2009).

Controlling for firm industry and employing the fixed-effect panel data regression (sensitivity test, Table 6.9) is a proper method to control for endogeneity that might be caused by an omitted variable, which is one of the main prospects of endogeneity problem (Yermack, 1996; Wooldridge, 2002). In addition, Durban-Wu-Hausman test of endogeneity is used to have further assurance. The test reported (p=0.14xx) indicating no threat of endogenous variables. Baum (2006) argues that a strong rejection of the null hypothesis will lead to a more reliance on 2SLS test instead of the OLS model estimates. In this research model case, the results are in favour of the OLS model estimates.

Some studies have used different liquidity proxies compared to the proxy used in this research. One of the used proxies for liquidity is the current ratio (current assets/current liabilities (Cahan et al., 2011; .Basiruddin, 2011) while other studies use

the current to total assets ratio. Liquidity is measured in this research by the ratio of current assets over total assets (Lin and Liu, 2009). This proxy is controlling not only for current liabilities and whether companies are able to pay their short term debts from their current assets; but also for their liabilities that might have a short term characteristic but it has been re-scheduled to have a long-term balance (bank overdrafts). The proxy also controls for any potential dividends payments to shareholder that are included in the equity balance.

OLS Cross Sectional Panel Regression Using Robust Standard Error
(Random - Effects GLS regression)

Table 6.11

LnAF	Coefficient	z-statistics
Intercept	4.944	18.760***
RD	-0.351	-3.040**
BS	0.079	8.480***
NED	0.932	18.290***
ACS	0.013	0.710
ACI	-0.180	-1.420
ACM	0.109	5.260***
FINEXP	-0.210	-2.560***
OC	-0.267	-2.630***
LnTA	0.509	36.280***
ROA	-0.033	-0.130
LQD ¹	-0.032	-2.340***
LEV	-0.393	-1.620
OG	-0.358	-2.740***
BMAT	-0.022	-0.190
CoNGDS	-0.172	-1.780*
Indus	0.437	4.620***
ConNSeR	-0.195	-1.950*
Telecomm.	-0.073	-0.310
HC	0.120	0.580
Tech.	(omitted)	
R-squared		0.607
N		908

*p < .10, **p < .05, ***p < .01

¹ Liquidity is measured by current ratio (current assets divided by current liabilities) for results' sensitivity purposes.

Table 6.11 presents the statistical relationship between the dependent and independent variables using different proxy of liquidity control variable for robustness/sensitivity check. It is noted that the results of all independent variables are the same as discussed previously in table 6.8. The model fit of this econometric model (0.607) is very close to the R-squared presented at the initial regression test (0.601). The consistency of results between the two econometric models using different proxy for one of the control variables (liquidity) gives more robustness for the results discussed.

OLS Cross Sectional Panel Regression Using Robust Standard Error
(Random - Effects GLS regression with financial crisis variable)

Table 6.12

LnAF	Coefficient	z-statistics
Intercept	4.879	15.430***
RD	-0.362	-3.250***
BS	0.079	9.200***
NED	0.918	13.860***
ACS	0.019	0.990
ACI	-0.191	-1.510
ACM	0.112	5.300***
FINEXP	-0.212	-2.940***
OC	-0.267	-2.420**
LnTA	0.513	29.720***
ROA	-0.004	-0.020
LQD	-0.095	-0.860
LEV	-0.367	-1.330
OG	-0.410	-3.490***
BMAT	-0.126	-1.240
CoNGDS	-0.195	-2.200**
Indus	0.431	4.860***
ConNSeR	-0.203	-2.030**
Telecomm.	-0.092	-0.390
HC	0.098	0.480
Tech.	(omitted)	
Financial crisis	-0.019	-0.470
R-squared		0.5978
*Number of groups		4
N		908

*p < .10, **p < .05, ***p < .01

Table 6.12 is presented as another sensitivity test taking into consideration the financial crisis impact over the tested sample. A dummy variable is included to split between two periods; 2007-2008 and 2009-2010. A zero value is given to observations of 2007 and 2008 and one value is given to observations of 2009 and 2010. The objective of splitting the sample into two categories is to identify post and pre-period financial crisis group of observations.

It can be noted that the results in the above regression table are relatively the same results of the GLS regression test table presented in table 6.8. This is due to the fact that the period between 2007 and 2010 is embedded with financial crisis consequences. Jin et al. (2013) state that a period before 2007 is said to be a pre-financial crisis period. Also Davydov (2013) mentions that the year of 2010 is considered a financial crisis period. In conclusion, the above arguments support the similarity of results between the two regression tests (Table 6.8 and table 6.12). The inclusion of a financial crisis variable did not make any major difference in the results of the regression tests. The tested sample of this study is embedded with financial crisis characteristics; accordingly financial crisis variable would not affect the robust results.

6.3 Conclusion

The chapter includes the results of the statistical relationship between audit quality and corporate governance mechanism and companies' characteristics. It includes a description and analysis of different industries tested. The descriptive statistics are presented which helped to identify the non-parametric nature of the sampled data. The chapter also includes collinearity schedules test using a Spearman correlation matrix. The regression test, random-effects GLS regression with robust standard error, shows that the majority of hypotheses were supported by the statistical results.

Audit quality showed a significant positive relationship with board of directors' size and independence and a negative relationship with role duality. It can be concluded that within the British context, a bigger board of directors with diverse backgrounds leads to better audit quality. Also, more independent directors lead to better audit quality. It is said that independent directors demand better audit reputation (Chen and Sun, 2007). The results show that role duality, within British companies, is not preferable as it lowers audit quality, since two positions are being managed by one individual.

As for audit committee variables and their impact on audit quality, the results show that there is no significant statistical relationship between audit committee independence and size and audit quality; but there is a positive significant relationship between audit committee meetings and audit quality. This result gives an indicator that more active audit committees in British companies, the better audit quality is achieved. Financial experts within an audit committee are negatively related to audit quality. Contrary to the hypothesis, this result indicates that auditors incur additional time in a company when the audit committee lacks financial experts.

Finally, the chapter empirically shows that audit quality is higher in larger companies. The larger the companies, the bigger potential number of shareholders and stakeholders and consequently the more audit quality is demanded from management and shareholders.

The empirical study investigates the relationship between audit quality and corporate governance characteristics. Previous studies have been conducted to assess audit fees in relation with different governance mechanisms. O'sullivan (2000) concludes that role duality and block holders have no impact on audit fees. The first corporate governance code was established by that period (Cadbury Report, 1992) as the sample of this study

was from a period between 1992-1994. Audit committee characteristics are excluded from this study which is not the case in this research. Four proxies are used in this research to analyse audit committee characteristics in relation to audit quality. Zaman et al., (2011) argue that the wider the audit scope, the better audit quality. The researchers analysed non-audit fees to support the argument of the study that was conducted covering a period from 2001 to 2004.

Hussianey (2009) states that investors perceive higher audit quality if the financial statements are audited by Big-Four audit firms. This argument cannot be applicable in the current research. The sample consists of listed companies at the FTSE 350 where 97 per cent of these companies are audited by Big-Four. Non-audit fees and specialised auditors are used as measures for audit quality in addition to audit quality. Previous literature show different results. Non-audit fee is a proxy for auditors' independence (Knap, 1985) and specialised auditors could be a biased proxy for audit quality (Cahan et al, 2011). The previous two studies contradict with the argument that audit quality reduces manipulated earnings (Basiruddin, 2011) since audit quality has been measured by non-audit fees in relation to earning management.

It is noted that most of the previous literature focused on audit fees inclusive voluntary and mandatory audit and non-audit services. When considering audit firms' size, the majority of researchers did not differentiate between audit market share from mandatory audit services and market share from voluntary audit services that can include many other services besides financial audit (Advisory, consultancy, transaction services, and tax services).

It has been empirically tested and verified that corporate governance plays a significant role in audit quality. The results give a clear answer to the research question related to

the impact of corporate governance on audit quality. As for mechanisms, the study highlights different corporate governance mechanisms that have a significant positive/negative relationship with audit quality. The mechanisms give an answer to the second research question about what mechanisms in particular affect audit quality.

Chapter Seven

Conclusion

Chapter Seven–Conclusion

7.1 Introduction

This thesis is contributing to the knowledge in different aspects. The main objective of this thesis is to highlight the accountancy profession challenges, their impact on the market after the recent crisis witnessed and to highlight some gap in the previous literature. The research has critically identified certain gaps in the literature related to corporate governance and the role of external auditors, and the audit profession. Mainly, some studies summarised auditors' behaviour against factors embedded at audit firms and different scenarios auditors may face during their employment at audit firms. This group of studies covered mainly senior and audit staff levels' behaviour only employed at Big Four and non-Big Four audit firms.

Previous literature related to corporate governance is classified into many groups. One group of studies explained and researched corporate governance mechanisms and their effect on corporations' performance and the relationship between agency cost to be incompliant with corporate governance code. Another group defined the role of external auditors. Another group of studies covered the area of corporate governance characteristics and its relationship with audit quality and type of auditors to be assigned.

Due to the fact that no studies, to the best of my knowledge to date, have been conducted to relate between auditors' behaviour and audit firm factors, and audit quality and companies' governance characteristics. Moreover, behaviour of auditors have been analysed among different group of auditors, unlike previous studies that limited their research by studying the behaviour of audit trainees or senior auditors. This research specifically analyses the relationship between auditor quality and companies' corporate

governance characteristics, mainly those characteristics which interact with external auditors' tasks and nature of work. Clients' corporate governance characteristics are obtained from companies listed on the FTSE 350. The second empirical study analyses the behaviour of auditors and how they potentially commit dysfunctional behaviour when they face time deadline, time deadline and performance evaluation scenarios

The methods used in the previous studies varied depending on the nature of each study. Some studies used the questionnaire method to analyse auditors' feedback against a set of questions. Other studies conducted interviews with different audit levels and analysed their replies. Reviewing previous literature through an interpretative framework was also used in studies that avoided the questionnaire and interview methods. As for studies related to corporate governance, most of these studies used a data-collection method, secondary data, by using different applications and data hubs for sampled companies.

7.2 Theory and Methods

Different theories frame the auditing practice in general, and audit quality and auditors' behaviour in particular. The agency theory is used to manage the relationship between a principal (shareholder) and an agent (management). It is said that an improper balance in this relationship leads to an increase in agency costs. Agency costs are summarised by monitoring cost, bonding cost, and residual loss. Moreover, a misbalanced relationship between a principal and an agent leads to different conflicts, from an agency theory perspective, as managerial hazard agency conflict, earnings retention agency conflict, time horizon agency conflict and managerial risk aversion conflict. As a result of the above agency cost, agency conflicts and potential information asymmetry, external auditors are considered a tool to solve these issues.

Companies assign external auditors, especially Big Four audit firms, to have credible financial statements that are audited by a credible accountancy firm. Although external auditors are assigned by the board of directors, their daily communication is with organisations' management.

Conflict between shareholders and management is expected to be solved through auditors. The better the audit quality, the more conflicts are expected to be solved. The signalling theory, in addition to the agency theory and the stakeholder-agency theory, is introduced into this study to label the theoretical approach of audit quality. Companies (buyers) are willing to pay more for an audit service which is perceived to be performed by a credible high quality audit firm (seller). The more audit fees are paid, the more signals are perceived showing that financial statements are audited with better quality.

The stakeholder theory governs the relationship between an organisation and its external environment. In particular, it helps in framing the relationship between auditors (employees) and their firms. Due to the fact that this relationship is between one stakeholder only (employees/auditors) and audit firms, then a principal-agent relationship (agency theory) is also framing the second empirical study. Audit firms should treat all auditors the same and no pressure should be exercised that may lead to dysfunctional behaviour.

It is also said the going concern of an organisation is highly related to the support of stakeholders. The life of an audit firm is also highly related to the behaviour of its auditors. It was evidenced through the famous Enron scandal where we witnessed severe dysfunctional behaviour by auditors that led to the collapse of the giant firm of Arthur Andersen.

Auditors' behaviour and audit quality and are the main variables that are studied in this research. Auditors' behaviour is analysed to highlight internal factors affecting it in addition to companies' characteristics that may affect audit quality. Exploring the determinants of auditors' behaviour, the second model is included to complement with the first model. Previous studies have used different proxies for audit quality, but rare ones have used the audit fees proxy supported by the theoretical and professional argument.

As explained thoroughly in the research methodology chapter, objectivist ontological position and the positive epistemology are the selected justified philosophical and methodological approaches used in this research. The agency theory is the selected justified theory associated for this research. It is considered part of the positive accounting theory embedded in the objective ontology. As a result of this theoretical philosophical framework, the hypothetico-deductive (testing) approach is the appropriate approach to be used in this study.

There are two surveys included in this research. The first empirical model uses a valid and reliable questionnaire. The questionnaire has been reviewed, validated and a pilot study was conducted to assess its appropriateness to meet the model's objective. It measures and analyses the perception of auditors' behaviour in different scenarios. Mainly auditors' behaviour is analysed against time budget, time deadline, and performance evaluation factors.

The second survey is made up of a designed data collection checklist for a selected variables collected from a secondary data source. This model tests the set hypotheses and analyses the determinants of audit quality against corporate governance mechanisms. The methodology of the second empirical model tests the hypotheses

against corporate governance characteristics, board of directors' independence, board of directors' size, role duality, audit committee size, audit committee independence, audit committee effectiveness, audit committee with financial experts, and ownership concentration. It also tests audit quality against companies' characteristics, companies' size, profitability, leverage and line of industry as selected control variables.

In addition to the primary source of data collection for this model, observations are analysed using quantitative analysis and some qualitative analysis from respondents' interpretations.

The sample of the first model is comprised of non-financial companies listed on the Financial Times Stock Exchange (FTSE 350). The sample of the second model comprises auditors employed at the UK Big Four firms.

The relationship between theoretical perspective and the empirical analysis is linked using research methodology. The deductive methodology explains that a researcher is testing a theory by conducting empirical work and analysing related results. Due to the previous explanation, the research is directed to the hypothetico-deductive methodology. This type of methodology helps the main purpose of the research as it is based on a theory rather than establishing a theory (inductive approach).

7.3 Results and Findings

The thesis consists of two empirical studies where both studies have been conducted in the UK context. The first empirical results' show clearly that dysfunctional behaviour is exercised by most auditors. Auditors' perception related to dysfunctional behaviour is analysed in three different scenarios: time budget, time deadline, and performance evaluation.

The survey highlights certain facts related to the accountancy profession. It is noted that audit firms are currently giving the vacancy priority to qualified auditors rather than auditors with graduate degrees. This can be supported by the decline in graduate degree holders in the UK. It is also shown that the more auditors accumulate experience, the less audit firms can retain this group of auditors.

It was interesting to notice that auditors knowingly, and not unintentionally, commit dysfunctional behaviour. Although the results show that auditors believe that they should not commit any under-reporting of chargeable time when facing time-budget constraints. It is evidenced that auditors facing the three different scenarios tend to work heavily in their personal time. One of the most common audit problems, “box-ticking exercise”, is not proven to be exercised heavily as per the survey results. It can be due to the increase in awareness among auditors to mitigate audit failures and to a better review by experienced auditors over the work of audit team members.

It is perceived that working in one's personal time might give an advantage for audit staff to finish an audit assignment. It is the responsibility of the audit firm to inform and to highlight this critical concern. Working from personal time may lead to indirect losses for the audit firm in the long term as the firm will not be aware of the actual hours spent on every assignment.

The survey was conducted in collaboration with the Big Four accountancy firms in the UK and the audit methodology of these firms shown to have no significant impact of dysfunctional behaviour (mean and median 3). It can be concluded that audit methodology is being transmitted to auditors via a massive number of training events where they become familiar with methodological issues. The training is helping all auditors to minimise dysfunctional behaviour when it comes to audit firm methodology.

The coordination between different lines of auditors in preparing budgets and allocating tasks showed to have a negative relationship with dysfunctional behaviour and to minimise such behaviour. It is proven that communication among auditors plays an important role in minimising dysfunctional behaviour. The communication with those charged with governance proved to have no significant impact on dysfunctional behaviour. It is implied that external auditors still prefer to do the job themselves with no heavy reliance on other parties, though it is allowed by the standards.

A Mann-Whitney test indicated significant differences between experienced auditors and audit trainees. It is shown that when a question is targeting a specific group of auditors, the other group reply with less conservatism. Experienced auditors have a tendency to blame audit trainees more for dysfunctional behaviour and vice versa for audit trainees about experienced auditors. Also, some differences were due to the nature and responsibilities held by every type of auditor. It can be noted that with added experience, auditors tend to perceive more dysfunctional behaviour acts.

As a result of the above findings, the empirical evidence and results support the stated hypotheses for this study. It is proven that there is a significant positive relationship between auditors' dysfunctional behaviour with relation to time budget, time deadline and performance evaluation factors. Interesting findings were noted and new factors were found to play a significant role in auditors' behaviour. These findings differentiate this empirical study from other studies conducted to analyse to auditors' behaviour.

The second empirical work includes the results of the statistical relationship between audit quality and corporate governance mechanism and companies' characteristics. It includes a description and analysis of different industries tested. The descriptive statistics helped to identify the non-parametric nature of the sampled data.

The chapter also includes a collinearity schedules test using a spearman correlation matrix. The regression test, fixed-effects with robust standard error, showed that the majority of hypotheses were supported by the statistical results.

Audit quality showed a significant positive relationship with board of directors' size and independence and a negative relationship with role duality. It can be concluded that within the British context, a bigger board of directors with diverse backgrounds leads to better audit quality. Also, more independent directors lead to better audit quality. It is said that independent directors demand a better audit reputation (Chen and Sun, 2007). The results showed that role duality, within British companies, are not preferable as it lowers audit quality since two positions are being managed by one individual.

As for audit committee variables and their impact on audit quality, the results showed that there is no significant statistical relationship between audit committee independence and size and audit quality; but there is a positive significant relationship between audit committee meetings and audit quality. This result gives an indication that the more active audit committees in British companies, the better audit quality is achieved. Financial experts within an audit committee are negatively related to audit quality. Contrary to the hypothesis, this result indicates that auditors incur additional time in a company when the audit committee lacks financial experts. The insignificant relationship of audit committee size and independence is due to the collegiality principle. Most of audit committee members are at the same time board of directors members. The statistical relationship obtained with BoD characteristics compensates the insignificant relationship with some audit committee variables (independence and size).

Finally, the results show that audit quality is higher in larger companies. The larger the companies, the bigger potential number of shareholders and stakeholders and consequently more audit quality is demanded from management and shareholders.

7.4 Incremental Contribution

The current research about audit quality dynamics contributes to the literature of accountancy in different perspectives. From behavioural point of view, the results support the argument that in an agency relationship, a principal is expected to increase agents' efforts by more monitoring. But heavy monitoring will lead to incur some hidden costs that affect interpersonal relationships and reduce social distance (Dickinson and Villeval, 2008). Excessive monitoring on auditors, unfeasible budgets and tough performance appraisal measures; are factors which push auditors to behave dysfunctionally. Consequently, an agency conflict will arise and agency cost will increase as a result of the dysfunctional behaviour. It is the first study, as to my knowledge, that combine time budget, time deadline and performance evaluation factors to be analysed in relation with auditors' behaviour. The sample tested covers all levels within audit firms in the UK (audit trainees, senior auditors, managers, partners).

Some studies researched board of directors only in relation with audit fees; others researched the impact of audit committees on audit and non-audit fees. Also audit fees have been assessed in relation to different performance measures (earning management, profitability). The measurement of audit quality aligns with the framework of the first model. Many factors have been identified that impact auditors' behaviour when facing time deadline, time budget, and performance evaluation scenarios. Dysfunctional behaviour is measured by under reporting of chargeable time and pre-mature sign off. Accordingly, any dysfunctional behaviour will impact audit budgets for the subsequent

year. Auditors responsible for setting up budgets will be relying on a previous year deflated number of chargeable hours. Such deflated budgets will lead to different kind of pressures auditors will face on field and consequently lower audit quality.

Different sensitivity tests have been conducted to support the findings and conclusions. Also, the selection of the primary tests have been diagnosed to have the nature of the sample tested complies with the regression tests used. The Mann-Whitney test, which is equivalent to the Wilcoxon rank sum test, is used to analyse the significant differences between the two stratified groups; audit trainees and experienced auditors. The Mann-Whitney test is considered the most appropriate test to give higher efficacy in non-parametric data (John and Priebe, 2006). This analysis highlights on certain factors that are causing dysfunctional behaviour for some auditors while it is not the case with another auditors.

The random effects regression test (GLS) is used as the primary test to analyse the relationship between audit quality and companies' characteristics. The Hausman test has been used to support the use of the GLS test. In addition to the previous studies that state collinearity threshold to be acceptable up to 80% (Gujarati, 1995), the Variance Inflation Factor (VIF) has been included in the correlation matrix indicating no major problems in multicollinearity among variables. Additional sensitivity tests have been conducted to give more robustness to results; 2SLS regression test and fixed effects regression tests. Also, another GLS test has been conducted using different proxy for a control variable.

The research helps in understanding the principal-agent theoretical concept. It supports the argument that dispersed ownership has a positive impact on audit quality. Other studies conclude that role duality and board size have no impact on audit fees

(O'sullivan, 2000). The results in this research show that role duality and board size are positively related to audit quality. The non-existence of role duality helps in reducing the gap between directors and external auditors (Uang et al., 2006).

7.4 Research Implications

The thesis includes empirical studies that are related to the accountancy profession in general and auditing in particular. The research sample consists of surveys sent to auditors employed at the UK Big Four audit firms and non-financial listed companies on the FTSE 350. The results derived from this thesis can be used as a tool for decision makers, whether employed at corporations or audit firms.

Different conclusions are reached for internal factors affecting auditors' behaviour that will potentially affect audit quality. It is proven that auditors intentionally and knowingly commit dysfunctional behaviour in different ways. Working from personal time has been committed in three different scenarios: time deadline, time budget and performance evaluation. Audit firms' top management and managing partners should conduct massive training to spread awareness regarding this issue. I was informed by one audit partner that they have been conducting many training events for the last year on the disadvantages of auditors working in their personal time.

Audit firms should encourage their experienced auditors to coordinate with clients' internal audit teams. The results show that audit teams do not rely on some internal audit work, as allowed by the international standards on auditing, to save time and to meet deadlines.

It is interesting to notice that the famous "box-ticking" exercise is less exercised by auditors. This kind of exercise is considered as dysfunctional behaviour where auditors

tend to tick-mark certain audit procedures as accomplished while in fact they did not work through them. Although the results did not show a clear direction for this question, at least it did not show a clear tendency that it had been committed. It is recommended that audit firms should include in their Learning and Development (L&D) programmes a yearly online training session about this issue to keep it at its lowest levels. Another surprising finding audit firms might be interested in is that audit methodology shows not to have a direct impact on dysfunctional behaviour. This result might be due to the effective induction period audit trainees spend when they join audit firms. It might be helping them to excel in the audit methodology and to perform a proper audit without committing dysfunctional behaviour when it comes to complying with audit methodology.

Comparing the behaviour of experienced auditors and audit trainees, some differences are noted. With added experience, auditors tend to perceive dysfunctional behaviour more. Audit firms should encourage different levels of auditors to communicate better. From one side it helps to mitigate dysfunctional behaviour and from the other side it minimises the gap between group of auditors blaming each other when it comes to dysfunctional behaviour activities. A significant difference in replies is noted between the two groups: audit trainees and experienced auditors. This difference is noted when a question from the survey is targeting another group of auditors.

As for corporate governance mechanisms and companies' characteristics, it is recommended that companies should push to have more independent board members and to expand its board of directors. Results show that companies with such board characteristics benefit from a better audit quality. Also, companies operating in the

British context should avoid having the CEO and the Chairman positions held by one individual, as results show that role duality has a negative impact on audit quality.

It is not enough for companies to establish audit committees for compliance purposes; audit committees should be active to reach their objectives. Corporations willing to compete in different markets and looking to have better financial reporting should have active audit committees. Audit committees follow up on the work of external auditors and review internal audit reports as well. Compliance with the above findings helps companies and audit firms to mitigate any possible audit failure. The audit failure could be the result of dysfunctional behaviour committed by auditors in fieldwork or embedded improper mechanisms that are negatively affecting audit quality.

The above findings help in filling some gap in the audit profession and previous literature. It helps audit firms to understand some of the real reasons behind dysfunctional behaviour. It also helps corporations to receive better audit quality by highlighting selected corporate governance mechanisms that have a significant relationship with the audit quality and audit related matters.

7.5 Limitations and Future Research

Although the results and findings have highlighted different facts related to accountancy, this research still has some limitations. Audit quality, actual rather than perceived, could have been measured by an alternative proxy. Auditors' time sheets would be gathered to analyse the recoverability and utilisation rate of every assignment, comparing chargeable to non-chargeable hours. This task is not feasible for this research as confidentiality constraints for Big Four audit firms would prevent disclosing such data.

For the questionnaire survey, some respondents may not have taken the study seriously. This was the main the reason why auditors employed at Big Four audit firms were selected to participate in the survey. It is perceived that auditors employed at the Big Four audit firms are more qualified and competent than other auditors and consequently their responses would be more reliable. Due to data availability and access to other audit firms, a future research may compare the behaviour of non-Big Four auditors for any possible differences. Also a comparison between developing and developed countries would be an interesting study to highlight any differences that are due to cultural/country changes. The experiment technique would indicate additional factors that may lead to dysfunctional behaviour. An audit case study might be prepared and distributed to different group of auditors inclusive audit instructions on how to audit the given case. Different groups might be exposed to different deadlines (time and budget deadlines) and their audit behaviour might be diagnosed to highlight their audit results under different circumstances.

Governance mechanisms that are related to audit scope are included in this study. It is worth researching other mechanisms for any hidden impact on audit quality of other governance mechanisms that are perceived to have no impact on audit quality. The research scope is about the challenges facing the accountancy profession especially after many accounting scandals have taken place. It would be interesting to conduct a study on one of the evolving markets (Russia, Brazil, China, South Africa, and India) to identify any potential variances between a developed country and an evolving market country. This would give a broader idea about the levels of audit quality between a leading country in governance codes and other evolving markets' countries.

Another way to identify audit quality in relation with governance mechanisms and companies' characteristics might be through conducting a survey (questionnaire or interviews) with companies' personnel. This may help in understanding the perception of management and staff about the impact of governance mechanisms on audit quality. It will give additional evidence on factors affecting audit quality in addition to the factors and results concluded through the use of an econometric model and regression tests.

Financial expert variable is used by referring to disclosure in the annual reports; audit committees section. Future studies might simplify the measurements of financial experts by categorising it to industry segments. Relevant experience rather than a general financial experience can be used to assess relevant experience on audit quality. This is pending the level of disclosures and availability of such data in annual reports and other databases.

Additional variables and different proxies supported by arguments different from the stated arguments could be used to measure the relationship between audit quality and different corporate governance mechanisms.

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Appendix

Audit Quality Reduction Behaviours

Auditors should not employ the practice of underreporting chargeable time, even in the face of tight time-budget constraints.

When facing a tight budget, auditors shift chargeable time to non-chargeable categories on their time report/time sheet.

Under time-budget pressure, auditors prematurely sign-off a required audit step, which is not covered at other stages of the audit.

Under time-budget pressure, auditors tend to reduce the amount of work on a step beyond the normal.

Under a tight budget, auditors may accept insufficient or light explanations from the client.

Under a tight budget, auditors tend to handle substantive tests faster.

Under a tight budget, auditors tend to tick mark audit schedules after an essentially superficial review of supporting client documents.

It is a common practice to reduce the sample size specified in the audit programme without noting the reduction to meet tight deadlines.

Auditors tend to focus on risky areas to save time.

Pre-mature sign off usually occurs when auditing non risky cycles rather than critical ones.

Auditors tend to choose the highest thresholds of sampling techniques for the sake of achieving a good recoverability rate.

Senior auditors who assist in proposal preparation and research tend to lower the budgeted hours to increase their chances of winning a proposal for better evaluation from their superiors.

Team Mismanagement

Sometimes new auditors need to underreport time but with added experience, there is less of a need.

When facing a tight budget, auditors underreport chargeable time by performing chargeable work in their personal time.

Auditors tend to believe that the nature of the audit methodology and the length of documentation of audit work is a factor determining pre-mature sign off to meet tight deadlines.

Completing work to meet time deadline typically means the auditor does not have a break or have any personal life beyond work.

Auditors tend to exercise pre-mature sign off for some audit steps if everyone in the audit team is working too fast to meet the time deadline.

Auditors are asked by their superiors to handle substantive tests and generally operate faster to meet time deadlines.

Time deadlines have become tighter in recent years.

Time deadlines tend to be given without consultation.

Auditors are asked to underreport chargeable hours to achieve a good appraisal.

Auditors tend to work in their personal time rather than actual hours spent in order to maintain a profitable assignment.

Audit managers delegate tasks based on the standard hourly rate of every team member rather than the skills needed for every cycle in order to achieve a good profitable assignments and consequently better appraisal.

Non-Professional Behaviours

Senior and staff auditors knowingly underreport chargeable time.

Sometimes auditors need to underreport chargeable time to meet budget constraints.

When facing a tight budget, auditors charge time to other clients that should have charged to this client.

Under a tight budget, auditors tend not to pursue an unexpected problem occurring during a mission.

Auditors tend to perform superficial reviews of clients' documents to comply with budgeted time allocated to the audit assignment.

Under time budget pressure, auditors insufficiently document a technical point needed for the execution of a step.

Auditors are given a margin of insufficient documentation on a technical point needed for the execution of a step to meet a deadline.

Time deadline pressure is the result of increased competition in the audit market.

Time deadline pressure interferes with the proper conduct of an audit.

There is a tendency for auditors to pre-maturely sign off audit steps if auditors are working quickly to meet a time deadline.

Strict audit firm methodology is less exercised by senior auditors in order that they receive positive feedback from clients.

Audit managers participate in the development of ways to meet client needs, increase clients' portfolio and have more assignments so that they get better performance from their superiors.

Auditors tend to rely less on subject matter experts even if the auditors themselves are not highly knowledgeable in a certain area to maintain a good recoverability rate.

An auditor expecting a promotion may exercise less professional scepticism if this would harm assignment profitability.

Unethical Behaviour

Under a tight budget, auditors declare in their working papers that they have performed a control that they did not actually perform.

Auditors tend to declare in their papers that they have performed a control that they did not actually do to meet a tight deadline.

Normally, time deadlines are met ethically when the manager and the senior coordinate things together in setting up the budget.

When there is a risk of losing an audit assignment, partners tend to compromise rather than comply fully with audit firm methodology and auditing standards.

Auditors tend to pre-maturely sign-off an audit step when such sign-off may positively affect their performance evaluation.

Partners/Directors tend not to report all material control weaknesses to get assigned at a later stage to a non-audit assignment.
