THE UNIVERSITY OF GHANA
COLLEGE OF HUMANITY

THE INFLUENCE OF AUDIT COMMITTEE CHARACTERISTICS ON AUDIT QUALITY: AN EMPIRICAL EXAMINATION OF LISTED FIRMS IN GHANA

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THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MPhil ACCOUNTING DEGREE

DECEMBER, 2018
DECLARATION

I do hereby declare that this thesis is the result of my own research and has not been presented anywhere by anyone for any academic award. All works referred to have been duly cited and referenced.

I bear the full responsibility for any shortcomings with this work.

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CERTIFICATION

We certify that this thesis was done and supervised according to the laid down rules of the University of Ghana.

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DEDICATION

I dedicate this thesis to my lovely husband Mr. Christopher Foe for his love, understanding and support.
ACKNOWLEDGMENT

I thank God for the grace granted me to successfully complete this work. I also appreciate the efforts of my supervisors, Dr. Ibrahim Bedi and Dr. Cletus Agyenim-Boateng for their contributions and comments that have shaped the study.
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LIST OF ACRONYMS

FRC - Financial Reporting Council

GSE - Ghana Stock Exchange

IFRS - International Financial Reporting Standards

PCAOB - Public Company Accounting Oversight Board

AC - Audit Committee
ABSTRACT

The aim of this study was to examine the impacts of the characteristics of audit committee (AC) on audit quality in Ghana, using empirical evidence from listed firms in Ghana.

The study adopted the quantitative research approach and targeted all listed firms in Ghana but purposively selected 34 listed firms. The data was collected from the financial statements of the selected sampled firms of four (4) years, thereby resulting in 136 yearly observations. The data was analyzed using binary logistic regression.

The study found that AC size and independence significantly contributed to the prediction of audit quality. Also, although AC expertise showed a direct influence on audit quality, the result was not statistically significant while gender diversity of AC made a significant negative contribution to the prediction of audit quality. Furthermore, firm size and corporate board size as control variables made insignificant contributions.

The study proposed the following recommendations: First, management and boards of the listed firms should increase the size of their AC to help guarantee the quality of their audit reports. Second, the board of listed firms should ensure that most of the members of the audit sub-committee are non-executive or independent directors. Third, although AC expertise has made insignificant contributions to the prediction of audit quality, the study argued that its contribution could become significant, if the current low representation of experts on AC of listed firms could be increased.

The results of this study are however limited to the 34 sampled listed firms in Ghana due to non-availability of data at the time of this research.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Auditing is said to be in a state of crisis (Hay, 2015) since the occurrence of the high profile financial and accounting scandals that led to the demise of Enron, WorldCom, and other financial giants. Generally, it is assumed that the auditor should assure the quality of financial reports by detecting and reporting on the fraudulent misrepresentations in firms’ accounting information (Houmes, Foley & Cebula, 2013; Mohamed & Habib, 2013). The value of any financial information depends on how credible that information is. As a result, the major aim of the auditing activities and functions is to enhance and guarantee the quality of the financial reports (Houmes et al., 2013). Unfortunately, the auditing functions failed to protect investors and the general public by assuring the integrity and credibility of the financial reports, leading to the huge financial crises in the early 2000s, which in turn has thrown auditing into a state of crises. This is because the scandal has significantly reduced the confidence of investors in the credibility of financial reports and the quality of audits (Hoag, Myring & Schroeder, 2017; Zgarni, Hlioui & Zehri, 2016). The scandals have also brought into question the role and effectiveness of AC in terms of protecting the integrity, credibility and quality of audit and financial reports that are generated for the consumption of financial information users (Alves, 2013; Cohen et al., 2010).

Audit quality is defined as the joint probability that an auditor will both discover a breach and report a breach in the client’s accounting system (De Angelo, 1981, p.183). According to the Financial Reporting Council, UK (FRC) (2015), an audit is regarded as high quality if it achieves “greater degree of assurance that the financial statements were prepared in accordance with the financial reporting framework (or if necessary ensures they are to do so)
or results in an auditor’s report that communicates the auditor’s disagreement or restricted ability” to opine (p.6). High-quality audits are essential for the credibility of the financial statements and are thought to protect the economic interest of the owners and other interested parties by enhancing the value of the financial statements prepared by the managers (Suleiman, 2017, p. 351). According to Jere (2004), the level of audit quality ranges from high to low on a theoretical continuum and that audit failures normally occur at the lower end of the quality continuum.

To restore and sustain public confidence in the quality and integrity of audit reports and financial or accounting information, there have been a widespread corporate governance reforms throughout the world, which among other measures, strongly advocated for the effectiveness of auditing and AC to proactively prevent audit failures while promoting audit quality. For examples, in the US, the Sarbanes-Oxley Act (2002) was promulgated with the aim of resolving the rising concerns raised by stakeholders especially investors who are concerned with the credibility and reliability of financial reports. Similarly, the UK Corporate Governance Code is part of a framework of legislation, regulation and best practice standards, which aim to deliver high-quality corporate governance that should be complied with by the [AC] as a means to promote audit quality in the UK” (FRC, 2016, p. 2). The code provision requires the main board to establish an AC, which is a sub-committee of the main board that mostly, encompasses nonexecutive directors responsible for the oversight of reliable financial reporting and credible audit function (Cadbury, 1992; Rezaee, 2009, p. 120).

Relatedly, in Ghana, regulations and laws such as the Companies Code 1963 (Act 179), Securities Industry Act, 2000 (Act 590), and the Listing Regulations 1990 (L.I. 1,509) of
Ghana Stock Exchange (GSE) highlight the significance and responsibilities of corporate board, directors and auditors in the effective management of companies. Similarly, the establishment of The Institute of Directors, Ghana, the Private Enterprise Foundation and the State Enterprises Commission are meant to ensure that companies’ corporate governance systems (of which auditing and the role of AC is a critical component) are in line with best practices in Ghana (Agyemang & Castellini, 2015).

Aside the coming into being of these financial and corporate governance reforms, quite a significant number of stakeholders had earlier on, and prior to Enron collapse in 2001 on several instances, suggested that a drastic reduction in fraudulent financial reporting can be realized through improvement in the quality of ACs (Baxter, 2010; Levitt, 1998; Myers & Ziegenfuss, 2006). AC acts as a source of formal exchange of information between the board, the internal monitoring system, and the external auditor. In fact, the AC provides oversight functions of the management in respect to auditing, financial reporting, internal control and risk management in organizations with the aim of protecting shareholders, and the general public (Alves, 2013, p.147).

The AC plays the important role in reducing information asymmetry and mitigates agency-related problems between stakeholders and management as well as creditors and shareholders (Jensen & Meckling, 1976). It also plays an important role in the capital markets’ investor protection framework through their oversight of audit engagement and financial reporting process (Lin, 2018, p.192). As captured and emphasized in the amendments to the framework of the Financial Reporting Council (FRC, 2015) that govern and regulate auditing practice, effective stewardship has been the fundamental role of ACs.
Similarly, various characteristics of an AC have been proposed as indicators of how effective an ACs’ role is in promoting audit quality (Baxter, 2010). These proposed characteristics include the independence, diversity, expertise, tenure, meeting, and size, among others of the AC. The characteristics of ACs play a central role in the quality of financial reports. An effective and “independent AC with relevant expertise is expected to enhance approaches to auditing which contribute to improved audit quality” (Mitchell et al., 2008; Sulaiman, 2017, p.351).

In developing economies like Ghana, the existence of strong conventional governance mechanisms to contain agency problems and improve audit quality is lacking. This undoubtedly has significant implications for the roles of ACs in enhancing audit quality (Ho & Hutchinson, 2010). Based on the above background, this study sought to examine the impacts of the characteristics of AC on audit quality in Ghana, using empirical evidence from listed firms in Ghana.

1.2 Problem Statement

Corporate failures have become a major issue in recent times in Ghana. Notable examples include the collapsed and takeover of UT Bank and Capital Bank by Ghana Commercial Bank following Bank of Ghana’s assessment that indicated that they were in distressed position. Similarly, Unibank and Sovereign Bank are currently under administration based on the directives of the regulator, the Bank of Ghana (Bank of Ghana, 2018). These developments are said to have shocked many investors and members of the general public as their audited financial reports have not sent any signal about their poor states. Even though
many factors could be responsible for what befell these institutions in Ghana, it suggests an apparent audit quality and irresponsibility on the parts of the ACs as they seem not to have discharge their watchdog roles in an effective manner. Prior to this, Aboagye and Otieku (2010) also suggested that the failure of some financial sector institutions could be attributed to malfunctioning corporate governance instituted to enhance their proper administration and management. These concerns generally raise bigger questions about the state of corporate governance systems, particularly, about the role of ACs in enhancing the quality of the financial and their associated audit reports provided by firms in Ghana to financial information users.

Moreover, the relationship between AC and audit quality has been examined by several researchers (e.g. Alzoubi, 2016; Appiah & Amon, 2017; Baxter & Cotter, 2009; Inaam & Khamoussi, 2016; Oussii & Taktak, 2018; Salehi & Shirazi, 2016). However, the existing research findings on the impacts of the characteristics of AC on audit quality showed mixed results. While some researchers (e.g. Allegrini & Greco, 2013; Barua et al., 2010; Khlif & Samaha, 2014; Mohammad-Nor, Shafie & Wan-Hussin, 2010) found that there is a significant positive effect of AC meeting on audit quality, other researchers (e.g. Appiah & Amon, 2017; Inaam & Khamoussi, 2016; Lin & Hwang, 2010) found a negative result. Similarly, while, Appiah and Amon (2017) showed that AC size has no effect on audit quality, other scholars such as Inaam and Khamoussi (2016), Lin and Hwang (2010), and Salehi and Shirazi (2016) suggest that AC size can have a positive impact on audit quality. The above is not different with respect to the impact of AC expertise on audit quality. For example, Appiah and Amon (2017) found that insolvency does not have a significant relationship with the financial expertise of an AC. On the other hand, Inaam and Khamoussi (2016) suggested that AC expertise can contribute to low tendency of organizations to
manipulate or manage their earnings. These findings also contradicted findings of other researchers (e.g. Alzeban & Sawan, 2015; Oussii & Taktak, 2018; Salehi & Shirazi, 2016) who found a positive result.

From the above, it is clear that there is still lack of agreement in previous studies with respect to how AC characteristics can affect audit quality. Consequently, some researchers (e.g. Brennan & Kirwan, 2015; Gendron, 2009) have called for more empirical research to help in understanding how ACs and their characteristics affect audit quality, and related accounting outcomes like financial reporting quality (Gendron, 2009). Prior to this, the FRC (2006) also maintained there is the “need to better understand how the conduct of the ACs contributes towards achieving quality auditing in practice” (p. 65).

Furthermore, although few researches (e.g. Pletzer et al., 2015; Solimene et al., 2017) have examined the impact of board diversity on the effectiveness of corporate boards and firms, researches on how gender diversity of ACs particularly can affect audit quality is rare globally and specifically in Ghana.

In addition, most of the studies examining the impact of the characteristics of the AC on audit quality were conducted in foreign and advanced economies’ contexts such as UK (e.g. Appiah & Amon, 2017), US (e.g. Thiruvadi & Huang, 2011), Portugal (e.g. Alves, 2013), just to mention few while there is dearth of similar studies in developing countries’ contexts such as Africa and Ghana in particular. Meanwhile, in Alzeban and Gwilliam’s (2014) views, in developing countries, ACs are recent and operate within cultural and hierarchical frameworks
that may differ from those in developed countries with different traditions and a longer history of more formalized governance (p. 85).

Admittedly, few studies within the African context were conducted in Morocco (see Nnadi, Efobi & Oledinma, 2017) and Tunisia (Zgarni et al., 2016). However, in Ghana in particular, studies examining the characteristics of AC on audit quality are either non-existent or scarce to find. Related studies on the topic in Ghana tend to focus on assessing corporate governance practices, like selection of corporate board members, among others (e.g. Aboagye-Otchere, Bedi & Kwakye, 2012; Agyemang & Castellini, 2015; Fiador, 2013; Bokpin, 2009; Simpson, 2014) and their impacts on corporate performance as well as the interaction effect of AC effectiveness and audit quality on voluntary disclosure quality (e.g. Agyei-Mensah, 2018). Yet, based on the literature reviewed, none of the available researches sought to analyse the impact of AC characteristics on audit quality, thereby indicating the existence of a significant gap in the accounting and auditing literature in Ghana and in Africa and other developing economies generally.

This state of affairs with respect to the topic seems to support Francis’s (2011) assertion that the determinants and outcomes of audit quality are under-researched. It further confirmed the various calls for more research on the topic (e.g. Brennan & Kirwan, 2015; Gendron, 2009). Based on the above, the aim of this study was to examine the influence of selected characteristics (based on data availability) of AC on audit quality in Ghana, using empirical evidence from listed firms in Ghana.
1.3 Research Objectives and Hypotheses

1.3.1 Research Objectives

The general objective of this study was to examine the influence of the characteristics of AC on audit quality in Ghana, using empirical evidence from listed firms in Ghana. Specifically, the thesis aims to:

1. Examine the influence of AC size on audit quality.
2. Determine the influence of AC independence on audit quality.
3. Analyze the influence of AC expertise on audit quality.
4. Investigate the influence of the gender diversity of AC on audit quality.

1.3.2 Research Hypotheses

The following hypotheses of the study are discussed in section 2.7.

H1: AC size will have a significant positive influence on audit quality in Ghana.

H2: AC independence will have a significant positive influence on audit quality in Ghana.

H3: AC expertise will have a significantly and positively affect audit quality in Ghana.

H4: Gender diversity of the AC will positively and significantly affect audit quality in Ghana.

1.4 Significance of the Research

This research is expected to significantly influence practice, policy and research. First, findings of this study would help practitioners such as corporate managers and board
chairpersons of the listed firms to better understand the critical roles AC’s characteristics such as expertise, size, independence, and gender diversity can play to ensure audit quality in their organizations. This can enable them take proper measures to ensure that their ACs are constituted in a way that will guarantee audit quality, and ultimately add value to their firms.

Secondly, the findings provided useful information for policy makers and other relevant stakeholders in Ghana such as the Securities and Exchange Commission, Ghana Stock Exchange, the regulators of the auditing and accountancy profession, among others to formulate new policy guidelines, or improve on the existing corporate governance systems (with particular reference to AC composition) to ensure that the ACs play their roles as watchdogs more effectively to promote audit quality and prevention of fraudulent activities and other financial misconducts.

Third, studies examining the influence of AC characteristics on audit quality remain unexplored in the Ghanaian auditing field as most of them were conducted in foreign and advanced economies’ contexts (e.g. Alves, 2013; Thiruvadi & Huang, 2011), while there is dearth of similar studies in contexts such as Africa and Ghana in particular. Hence, this study provided empirical evidence from listed firms to bridge this gap in the auditing literature in the Ghanaian context. Findings of this study are therefore expected to serve as an important source of reference for future researchers on ACs, audit quality and related areas generally and specifically in Ghana.

1.5 Scope of the Study

This study assessed the influence of AC characteristics on audit quality of listed firms in Ghana. Hence, it focuses on AC characteristics (specifically, size, expertise, independence,
and gender diversity), audit quality, and listed firms in Ghana. Data on the study variables were collected from secondary data sources, specifically, the annual reports of 34 listed firms spanning from the periods 2010 – 2013. This resulted in 136 firm-yearly observations for the analysis. Similar firm-yearly observation was used by some previous researchers (e.g. Aboagye-Otchere et al., 2012; Agyei-Mensah, 2018; Oussii & Taktak, 2018). The sampled firms were from the financial (banking and insurance) sector (13 firms), mining sector, oil and gas (5 firms), manufacturing and sales (13 firms), agricultural sector (2 firm) and information and communication industry (1 firm).

1.6 Structure of the Thesis

The thesis is structured into five chapters as follows. Chapter one introduces the study in terms of the research problem and the underlying motivation as outlined above. It covers the background of the study, problem statement, research objectives, research hypotheses, significance of the research, scope of the study, structure of the thesis.

Chapter two presents a review of extant literature and associated theoretical underpinnings of AC characteristics and audit quality. The theoretical lens within which this study is rooted is initially presented. Specifically, the study employed the agency theory as the main theoretical framework to explain the impact of AC characteristics on audit quality. It discusses the regulatory framework and auditing practices in Ghana, concept of audit quality and measures of audit quality. This is followed by a discussion of the pertinent issues related to the independence and composition of ACs and how they are related to audit quality. The empirical literature review and hypotheses development was also presented. The chapter ends a proposed conceptual framework and a summary of the findings.
In chapter three, the research methodology is presented. The chapter begins with a detailed discussion on the research paradigms and design strategies that underpin this study. The selection and justification of the research population, sample and data sources is presented next. This is followed by description of study variables, data analysis and a detailed description of the empirical estimation model.

Chapter four presents the statistical results and discussion of the results. It is divided into two main sections. The first sections cover the empirical results. The analyses covered preliminary data analysis and test of main hypotheses. Specifically, the analyses were conducted to explore preliminary association between audit quality and AC characteristics (size, independence, expertise and gender diversity) as well as the control variables (corporate board size, and firm size) using scatterplot and correlation). It also provided concise description of the variables using descriptive statistics. The main hypotheses were tested using binary logistic regression to predict audit quality from AC characteristics. The second section results provide a discussion of the results on the impact of AC characteristics on audit quality.

Chapter five presents the summary of the findings, conclusions drawn and the policy and practical implications of such conclusions to listed companies, regulators, and auditing firms. The chapter ends with some recommendations based on the key findings and the conclusions drawn, the key contribution of the study is specified as well as the limitations and directions for future research are finally presented.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of extant literature and associated theoretical underpinnings of AC characteristics and audit quality. The theoretical lens within which this study is rooted is initially presented. This is followed by a discussion of the pertinent issues related to the independence and composition of ACs, the internal audit function, and the extent to which they affect audit quality. The chapter ends with a proposed conceptual framework and a summary of the findings.

2.1 Theoretical Foundation

The agency theory is considered as an important theoretical framework to explain AC characteristics audit quality link. According to Jensen and Meckling (1976), whenever one or more principals (e.g. shareholders) engage other persons (e.g. managers) as agents or stewards to perform a service on their behalf, a principal-agency relationship arises. Hence, the agency theory argued that since owners of a firm are different from managers who manage its daily affairs, managers can engage in behaviours that deviate from what is required to promote the best interest of owners (Berle & Means, 1932; Jensen & Meckling, 1976).

The agency theory is noted to appropriately explains the behavior of managers in different companies by making available, an understanding of the interaction between AC characteristics and audit quality (Zgarni et al., 2016). Jensen and Meckling (1976)
characterized the “auditing function as an important bonding mechanism in firms which serves to more closely identify the manager’s interests with those of the outside equity holders” (p. 323). That is, the AC is perceived as agents of principals (stock and debenture holders). ACs as key corporate governance actors provide monitoring to reduce the possibility of gross misrepresentations or breaches that may be contained in a company’s financial statements (Zgarni et al., 2016).

The AC further plays the important role in reducing information asymmetry and mitigates agency-related problems between stakeholders and management as well as creditors and shareholders (Jensen & Meckling, 1976; McMullen, 1996). From the agency theory perspectives, corporate boards and their sub-committees have a “very important role in solving agency problems and to ensure a balance between the interests of shareholders and managers…diversity on the board produces positive effects due to different knowledge, skills, experiences, ideas and behaviors” (Solimene et al., 2017, p.2). Similarly, a “larger AC can accommodate members with diverse experience which is required to guarantee rigorous appraisal of the CEO’s performance…the enhanced monitoring role, in turn, may reduce the likelihood of a firm’s insolvency” (Appiah & Amon, 2017, p.303).

Moreover, ACs with presence of more non-executive directors have the potential to decrease the agency cost and enhance the quality of disclosures (Forker, 1992). Besides, an effective “AC with relevant expertise is expected to enhance approaches to auditing which contribute to improved audit quality” (Mitchell et al., 2008; Sulaiman, 2017, p.351).

In this regard, the agency theory postulates that in the light of severe agency problems or conflicts that exist between stakeholders and management, a higher quality monitoring should
be instituted to guarantee the preparation and dissemination of quality financial reports to stakeholders and investors (McDaniel, Martin & Maines, 2002) by enhancing on the disclosures made in the audit reports (Barako et al., 2006).

Similarly, large corporate boards may be more effective in reducing information asymmetry (McMullen, 1996), by enhancing on the disclosures made in the audit reports (Barako et al., 2006) through providing effective and regular monitoring to reduce the possibility of gross misrepresentations or breaches that may be contained in a company’s financial statements (Zgarni et al., 2016). More so, large size of corporate board may positively impact on audit quality because it can allow the board has access to different knowledge, skills, experiences, ideas (Solimene et al., 2017) necessary to facilitate the detection of frauds and compliance with required standards to enhance audit quality.

2.2. Concept and Meaning of AC

Generally, corporate boards are required to constitute sub-committees to ensure the effectiveness of their work. Such committees include the AC, appointment and nomination committee, executive committees, compensation committees, among others as deemed relevant. This study however focused only on AC of the corporate board (McMullen, 1996). AC acts as a source of formal exchange of information “between the board, the internal monitoring system, and the external auditor. In fact, the AC provides oversight functions of the management in respect to auditing, financial reporting, internal control and risk management in organizations, [with the aim of protecting] shareholders, and the general” public (Alves, 2013, p.147). The AC can be described as a delegate body of the corporate board which is mandated with responsibility of protecting and promoting the best interests of
the shareholders (Bedard et al., 2004; Klein, 2002). The AC is responsible for the selection of
the external auditor. As a result, the external auditor reports to the AC on their audit findings
(Alves, 2013)

2.3 Role of the AC

ACs have a wide range of roles that is not only time-consuming, but also bear significant
responsibilities. The AC plays the important role in reducing information asymmetry and
mitigates agency-related problems between stakeholders and management as well as creditors
and shareholders (Jensen & Meckling, 1976). AC is responsible for minimising issues that
are often associated with information asymmetry (McMullen, 1996) as well as safeguarding
the interest of the major stakeholders of the company (McDaniel et al., 2002) by enhancing
on the disclosures made in the audit reports (Barako et al., 2006). It also play an important
role in the “capital markets’ investor protection framework through their oversight of audit
engagement and financial reporting process” (Lin, 2018, p.192). As captured and emphasized
in the amendments to the framework of the Financial Reporting Council (FRC, 2015) that
govern and regulate auditing practice, effective stewardship has been the fundamental role of
ACs. Also, ACs with presence of more non-executive directors have the potential to decrease
the agency cost and enhance the quality of disclosures (Forker, 1992).

More so, it is the AC’s duties to make the internal audit function directly accessible to the
board of directors and to the AC itself, to which the internal audit function is directly
accountable. The implications of this responsibility are that numerous functions which are
very critical to the effective functioning of the internal audit function and hence audit quality
are assigned to the AC. It is the responsibility of the AC to see to it that adequate resources
are allocated to the functional units of the internal audit to ensure that members discharge their duties effectively. This however, hardly occurs in corporate organizations (Carcello, Hermanson, Neal & Riley, 2002; Carcello, Hermanson & Raghunandan, 2005). Furthermore, the AC reviews the “work of the internal auditor and tracks management responsiveness to findings and recommendations put forward by the internal auditor” (Alzeban & Sawan, 2015, p.541).

Moreover, the ACs have the responsibility of ensuring that the vital roles assigned to independent auditors who are often viewed as “public watchdogs” by regulators are effectively discharged. As Carcello and Neal (2000) contend, the primary purpose of forming an AC is not only to safeguard the independence of the external auditor, but also reinforce the auditor’s position in resolving disputes with management. From the viewpoint of regulators, the process of financial reporting instituted by the firm is monitored by the AC because it provides oversight responsibilities for the firm’s financial reporting process on behalf of the board of directors.

According to the Financial Reporting Council (FRC, 2015), the interest of investors and other stakeholders are served by the AC through their independent oversight role of the annual corporate reporting process as well as maintaining the relationship that exist between the company and the external auditor. In achieving this, the AC has the mandate to review and monitor the response from management to the internal audit function’s findings and subsequent recommendations (Alzeban & Sawan, 2015). Above all, the AC assumes the role of corporate governance mechanism because it scrutinizes the company’s financial
information as well as acts to facilitate the work put forward by the internal audit function and financial accountants.

2.4 Characteristics of ACs

Various characteristics of an AC have been proposed as indicators of how effective an ACs’ role is in promoting audit quality (Baxter, 2010). These proposed characteristics include the independence, diversity, expertise, tenure, meeting, and size, among others of the AC. These characteristics of ACs play a central role in the quality of financial and audit reports (Ika & Ghazali, 2012; Mitchell et al., 2008; Sulaiman, 2017).

2.4.1 AC independence

An AC is independent if there are a higher proportion of independent directors. An AC with presence of more non-executive directors has the potential to decrease the agency cost and enhance the quality of disclosures and audit reports (Appiah & Amon, 2017; Forker, 1992; Zhang, Zhou & Zhou, 2007). It has been argued that the size of both outside and non-outside directors on the board severely affects the independence of the AC. In this regard, it becomes very crucial for the board to possess an AC that is highly independent when the board consists of large pool of outside directors. The difficulty here is that boards require with outside-director as well as non-outside-director status to accomplish their mandates. Directors who are designated as outside directors assist in alleviating conflicts that arise between upper management and shareholders through monitoring whereas the specialized expertise relating to the firm’s evaluation and ratification of its future strategic plans is possessed by both inside and affiliated directors (Forker, 1992).
The performance of ACs is often affected by the extent to which they are attached to management. That is, a low performance is often recorded when members of the AC are not free from the independence of the management, and have personal and/or economic dependence on company management which is a typical of affiliated directors (Forker, 1992). In this regard, the Financial Reporting Council’s (FRC, UK, 2015 p. 3) “Guidance on ACs recommended that an AC consisting at least three members, or a minimum of two independent nonexecutive directors for smaller companies, should be established by the board. In the case of smaller companies, the chairman of the company may be a member but cannot assume the positions of a chairperson”.

2.4.2 Expertise of the AC

The expertise of the members of the AC is regarded as essential feature of ACs. The expertise of an AC is measured by the number of members with expertise in accounting, auditing and finance (FRC, 2012). Recently, Oussii and Taktak, (2018) defined the expertise of an AC as the “proportion of AC members possessing professional accounting qualifications among the total number of AC members” (p.40). The FRC (2014) suggested that ACs must have at the minimum one accounting and financial expert.

Relatedly, Alzeban (2015) posits that it is essential for “AC members to accumulate their own financial knowledge and experience, particularly in accounting, auditing and finance, as this will assist them in gaining a better understanding of the reports provided by internal auditors” (p.543). An effective “AC with relevant expertise is expected to enhance
approaches to auditing which contribute to improved audit quality” (Mitchell et al., 2008; Sulaiman, 2017, p.351).

Prior to this, McMullen and Raghunandan (1996) argued that ACs that possess accounting and auditing expertise have low propensity to support the chief executive officer when there is a misunderstanding between senior officers of the organisation and its external auditors. Similarly, Bedard et al. (2004) believed that such a committee may not support the chief executive officer with respect to aggressive earnings management. In Ghana, Aboagye-Otchere et al. (2012) examined corporate governance and corporate disclosure of 20 listed firms in Ghana. The panel data covered 2003-2007. Findings showed that audit commitments with member who has a background in accounting, auditing and finance contributed positively by enhancing disclosure practices of the firm.

2.4.3 Gender diversity of AC

The diversity of corporate boards is viewed from various perspectives such as skills set, experience, nationality, gender, among others (Pletzer, Nikolova, Kedzior & Voelpel, 2015; Solimene et al., 2017). This study focused on gender diversity. Gender diversity of the AC can be described as the extent to which female directors (whether outside or inside) are represented on the AC. In other words, it is the proportion of females on the audit sub-committee of a firm. According to Solimene et al. (2017), “diversity on the board produces positive effects, due to different knowledge, skills, experiences, ideas and behaviors”(p.2). Similarly, Pletzer et al. (2015) argued that higher number of females on corporate boards can generate positive benefits for the organization in terms of new desirable leadership skills that are introduced into the boardroom as well as strategic advantages for the organization. On the
contrary, some scholars (e.g. Milliken & Martins, 1996) called for caution since diversity itself is a double-edged sword. That is, it can create benefits to advance the objectives of the board and its sub-committees at the same time it can lead to undesirable outcomes such as conflicts in the boardroom.

2.4.4 Size of the AC

The AC size is defined as the number of directors on the audit sub-committee of a corporate board (Appiah & Amon, 2017; Chan & Li, 2008). It is believed that a large AC can improve the performance of the committee’s status as well as its power in the organization (Kalbers & Fogarty, 1993). However, large size can also have negative impacts on the effective of the firm, the board and its sub-committees firm value (Switzer & Tang, 2009; Guo & Kumara, 2012).

2.5 Regulatory Framework and Auditing Practices in Ghana

Three intersecting enactments and legislative instruments made up of the “Companies Code, Act 179, (1963), the Membership and Listing Regulations of the Ghana Stock Exchange (GSE, 1990), and Securities Industry Law, 1993 (PNDCL 333)” comprise the regulatory framework on Ghana’s corporate governance mechanisms. Similarly, the establishment of The “Institute of Directors, Ghana, the Private Enterprise Foundation and the State Enterprises Commission” are meant to ensure that companies’ corporate governance systems (of which auditing and the role of AC is a critical component) are in line with best practices in Ghana (Agyemang & Castellini, 2015). The other relevant legal framework that governs the auditing of institutions particularly in the public of Ghana are: The “Financial Administration Act, 2003 (Act 654), The internal audit agency Act 2003, (Act 658), The Auditor-General Article 187(2)” of the 1992 Constitution.
The provisions in these instruments and laws are mostly supported by the requirements of the International Financial Reporting Standards (IFRS) which now supersedes the standards and codes enshrined in the Ghana National Accounting Standards imposed by the Institute of Chartered Accountants, Ghana. The Companies Code requires that annual audited accounts which specify the profit and loss account, balance sheet, cash flow statements, and notes to the accounts should be made available to shareholders during annual general meetings to ensure full disclosure and transparency. The time frame within which annual reports are circulated to shareholders and investors in particular is regulated by the GSE. The GSE also makes it mandatory for listed firms to furnish with investors information on the remuneration of the board of directors and key executive members, factors on material foreseeable risks, voting rights and major share ownerships as well as the financial and operating results of the company. Supported by the GSE listing regulations, the Companies Code requires listed companies to institute and maintain ACs as well as make provision for the appointment, removal and retirement of directors.

Although these provisions of the Companies Code and regulations of the GSE coupled with the provisions of the IFRS are helpful in guaranteeing the reliability and quality of financial reports through Generally Accepted Accounting Principles (GAAP), strict financial reporting and auditing practices have generally been low (Tsamenyi, Enninful-Adu & Onumah, 2007). In this regard, the interest of shareholders and other stakeholders are not safeguarded. These regulatory frameworks are intended to ensure effective of monitoring and quality reporting of financial and accounting information through various transparent and accountable managers.
2.6 Concept of Audit Quality

The concept of audit quality is a complex, and as a result has been defined variously (FRC, 2006). Audit quality is defined by DeAngelo (1981) as the “joint probability that an auditor will both discover a breach and report a breach in the client’s accounting system”. According to the Financial Reporting Council, UK (FRC) (2015), an audit is regarded as high quality if it achieves “greater degree of assurance that the financial statements were prepared in accordance with the financial reporting framework (or if necessary ensures they are to do so) or results in an auditor’s report that communicates the auditor’s disagreement or restricted ability” to opine (p.6). In Sulaiman’s (2017) views, high-quality audits are essential for the “credibility of the financial statements and are thought to protect the economic interest of the owners and other interested parties by enhancing the value of the financial statements prepared by the managers” (p.351). According to Jere (2004), the level of audit quality ranges from high to low on a theoretical continuum and that audit failures normally occur at the lower end of the quality continuum.

2.6.1 Measures of Audit Quality

The FRC (2015) outlines four key elements that underpin audit quality evaluation. These include 1) the culture and mindset of the auditor, 2) knowledge, character, and skills, 3) quality control, and 4) judgment. The mindset and “culture entails adherence by the auditor to high professional and ethical principles and standards, especially integrity and independence position of the auditor”. Section 5 of the FRC Guidelines stipulates that the auditor must eschew all “personal and commercial interests that would (or otherwise) conflict with the responsibilities of his/her role and creates enabling environment that supports an appropriate personal mindset for auditors and appropriate audit firm culture”. Strong auditing skills that
take the form of analytical, investigative, and judgmental which are developed through effective training, communicative skills, and the accumulation of relevant experience are the foundations of the competence to perform high quality audit. The auditor should possess the “strength of character to approach the audit with a high degree of professional skepticisms. Perseverance and robustness, rigor, a sound knowledge of business, its industry and the environment in which it operates as well as an understanding of the regulatory and legal frameworks (including professional standards) that are relevant to the audit” and financial statement are the necessary personal attributes required to develop skills, character and knowledge (Section 5 of the FRC, 2015). The “quality control aspect of an audit engagement involves the identification of audit quality risks and establishment of adequate controls at the engagement level to address them, whilst taking account of controls at the audit firm level” (Section 5 of the FRC, 2015).

A concept release that proposes 28 audit quality indicators aimed at developing an audit quality framework for the US audit market has been issued by the Public Company Accounting Oversight Board (PCAOB) in recent times (PCAOB, 2015). The indicator is defined along three dimensions: audit process, audit professionals, and audit results (Brown, Gissel & Needly, 2016). The study provides empirical evidence of audit quality from the perception of practicing auditors which in effect can be. As noted by the 2015 edition of the PCAOB, (PACB, 2015), the existence of an audit quality framework provides wide range of benefits to the public when it is appropriately applied in an integrated audit. The audit quality framework offers “comparative information about audit firms with the purpose of driving a more vibrant market for quality audit services and help investors better evaluate the audit quality associated with the financial statements of current and potential” investments (PCAOB, 2015a).
It has been argued that defining audit quality based on the outcome of audit reports or solely by audit failures as has been the case in most prior works limits the capacity to fully understand and assess audit quality (Francis, 2011). Based on these voids, the PCAOB during its five-year (2012 – 2016) strategic plan and goals aimed at serving the public interest has through an audit quality framework proposed examples of audit quality indicators categorized into audit professionals, audit processes, and audit results (PCAOB, 2015a). The PCAOB (2015a, p. 3) states emphatically that in the absence of audit quality indicators, audit quality will be difficult to assess because the audit process lacks transparency. The concept release states: ‘audit quality “indications may provide new insights about how to evaluate the quality of audits and how high-quality audits are achieved and ‘may also stimulate competition among audit firms focused on the quality of firms’ work and thereby increase overall audit quality” (PCAOB, 2015, p. 1). The argument has been that audit firms vary on the audit quality dimensions.

Previous versions of the audit quality indicator were grouped into inputs (such as workloads, experience, training), process (such as information and communication, tone at the senior level “management), and results (such as financial statements and disclosures, AC communications, going concern warnings). The current version of the framework” however, presents the audit quality indicators in terms of 28 indicators in relation to audit professionals, audit process and audit report. This latest version (PCAOB, 2015a) was released on July 1 2015 (Brown et al., 2016). As stated in the PCAOB (2015, p. 13), each of the three components of the framework is measured by several audit quality indicators. Table 2.1 shows the elements that each component is composed of. Audit professionals are
composed of 12 items, audit process is composed of 9 items and audit results are composed of 8 items.

**Table 2.1: Audit Quality Indicators**

<table>
<thead>
<tr>
<th>Audit Professionals</th>
<th>Audit Process</th>
<th>Audit Results</th>
</tr>
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<tbody>
<tr>
<td>staffing leverage; partner workload; manager and staff workload; technical accounting and auditing resources; persons with specialized skill and knowledge; experience of audit personnel; industry expertise of audit personnel; turnover of audit personnel; amount of audit work centralized at service “centers; training hours per audit professional; audit hours and risk areas”; and allocation of audit hours to phases of the audit</td>
<td>Results of independent survey of firm personnel; quality ratings and compensation; audit fees, effort, and client risk; compliance with independent requirements; investment in infrastructure; supporting quality auditing; audit firm’s internal quality review results; PCAOB inspection results; and technical competency testing.</td>
<td>Frequency and impact of financial statement restatement for errors; fraud and other financial reporting misconduct; inferring AQ from measures of financial reporting quality; timely reporting of internal control weaknesses; timely reporting of going concern issues; results of independent surveys of audit “committee members; trends in PCAOB and SEC enforcement proceedings’”; and trends in private litigation.</td>
</tr>
</tbody>
</table>

(Source: Brown et al, 2016)

The PCAOB (2015a, p. 13) suggests several audit quality indicators:

- **Audit professionals**: “staffing leverage; partner workload; manager and staff workload; technical accounting and auditing resources; persons with specialized skill and knowledge; experience of audit personnel; industry expertise of audit personnel; turnover of audit personnel; amount of audit work centralized at service centers; training hours per audit professional; audit hours and risk areas; and allocation of audit hours to phases of the audit”;

- **Audit process**: results of “independent survey of firm personnel; quality ratings and compensation; audit fees, effort, and client risk; compliance with independent requirements; investment in infrastructure supporting quality auditing; audit firm’s internal quality review results; PCAOB inspection results; and technical competency testing”; and
• *Audit results:* frequency and “impact of financial statement restatement for errors; fraud and other financial reporting misconduct; inferring AQ from measures of financial reporting quality; timely reporting of internal control weaknesses; timely reporting of going concern issues; results of independent surveys of AC members; trends in PCAOB and SEC enforcement proceedings; and trends in private litigation”.

### 2.6.2 Auditor reputation as a proxy for audit quality

In previous empirical studies, various indicators of audit quality have been used. These include: the auditor industry expertise and experience (e.g. Hao, Liu & Xu, 2018; Hoag et al., 2017). “They are likely to share some best practices and industry-specific knowledge among their peers, helping them perform audits more effectively, thus improving audit quality” (Hao et al., 2018, p.251). Hoag et al. (2017) analysed the impact of the audit quality measures on financial reporting quality. Results suggested that auditor industry expertise has significant positive association with financial reporting quality. The consequently concluded that “audits conducted by firms with industry expertise are of high quality and can serve as possible viable alternatives, especially for smaller firms” (p.19).

Other measures of audit quality in empirical studies are: Earning management and discretionary accruals (e.g. Lim & Tan 2010; Garcia-Blandon et al., 2017), reputation of the external auditor (e.g. Hoag et al., 2017; Mohamed & Habib, 2013; Nnadi et al., 2017; Ojala, Niskanen, Collis & Pajunen, 2014; Zhang et al., 2007), external audit firm size; auditors with a large audit customer base have reduced incentives to “cheat” to retain any one client (Baxter, 2010; DeAngelo, 1981), external auditors opinion, whether is qualified (1) or unqualified (0) (González-Díaz, García-Fernández & López-Díaz, 2015; Jackson et al.,
2008). When an external auditor “issues an unclean audit report, it means they are able to objectively assess business results and resist client pressure to issue a clean opinion. Specialist auditors are likely to spend more on recruiting, training, and technologies” (DeFond, Raghunandan & Subramanyam, 2002, 1248–1249).

In this study, reputation of the external auditor is used to proxy audit quality. This is because it is more accessible to the researcher compared to the rest. The “auditor reputation is considered a measure of the audit quality [based on the view that] as the reputation increases, the audit quality increases” (Mohamed & Habib, 2013, p. 123). A central role played by external auditors as posited by agency theory is the mitigation of conflicts between principals (shareholders) and their agents (management) as well as reducing the asymmetric effects of information. This is normally achieved through the certification of the “credibility of financial statements. In effect, the external auditors provide assurance services to shareholders on the reliability of the financial statements prepared by listed firms” (Fan & Wong, 2005).

In line with this, large audit firms commonly known as the Big 4 are believed to have the capacity to adequately satisfy the needs of their clients on the basis that they possess the expertise as well as the necessary technical base to embark on an audit mission (Krishnan, 2003). In addition, they not only possess the requisite industry specialization and knowledge to uncover weaknesses that are associated with different sector’s internal control conception and application (Krishnan, 2005), but also maintain higher audit quality standards by investing more in their brand reputation (Francis & Wilson, 1998).
Although studies on the relationship between Big 4 audit firms and audit quality in the Ghanaian context is lacking, empirical evidence (e.g. Hoag et al., 2017; Khlif & Samaha, 2014; Rusmin & Evans, 2017) in other jurisdictions suggests that Big 4 audit firms, based on their status of international affiliation, enhance audit quality by providing high-quality and faster audit services that distinguish them from other local audit firms. Big 4 audit firms, based on their status of international affiliation, enhance audit quality by providing high-quality and faster audit services that distinguish them from other local audit firms. Hence the probability that Big 4 audit firms will issue a qualified audit opinion is relatively high. To a greater extent, Big 4 audit firms are more effective in detecting material misstatements and enhancing audit quality. They are known to facilitate compliance with mandatory disclosures by listed firms, reduce management reporting lag, and enhance corporate transparency.

For instance, Khlif and Samaha (2014) found in the Egyptian context that auditor with high reputation, specifically, Big 4 auditors significantly reduce management reporting lag. In a related study, Ebrahim and Abdel Fattah (2015) suggested that Big 4 auditors promote compliance with mandatory disclosure of firms listed in Egypt. Recently, Hoag et al. (2017) analyzed the impact of the audit quality measures on financial reporting quality. Results suggested that auditor industry expertise has significant positive association with financial reporting quality. They consequently concluded that “audits conducted by firms with industry expertise are of high quality and can serve as possible viable alternatives, especially for smaller firms” (p.19). In a similar study, Rusmin and Evans (2017, p.191) investigated the impact of auditor quality indicators (auditor industry specialization and auditor reputation) on audit report lag. Using data from listed firms on the Indonesia Stock Exchange during 2010 and 2011 financial years, results revealed that “companies audited by industry-specialist auditors have shorter audit delays. Also, Big 4 auditors perform significantly faster audit
work compared to non-Big 4 auditors”. Thus, firms with auditors with high reputation (like Big 4) can improve audit quality by reducing audit report lags. Teoh and Wong (1993), also argued that the big four auditors provide high quality audit. In addition, Francis and Yu (2009) found that the big four auditors are better in detecting material misstatements.

In view of these evidences, it is expected the use of Big 4 can serve as a proxy for measuring audit quality in the Ghanaian setting.

2.7 Empirical Literature Review and Hypotheses Development

This section of the chapter reviews empirical literature on the impacts of AC and its characteristics on audit quality. Available evidence suggests that AC can affect audit quality (e.g. Alves, 2013; Kamel & Elkhatib, 2013; Sulaiman, 2017). In UK, Sulaiman (2017) examined the impact of AC on audit quality. Using the qualitative research, the author interviewed 11 members each of ACs and audit partners. Results showed that AC plays critical roles in ensuring audit quality through effective monitoring and oversight functions. It however noted that the conduct of the AC in monitoring “four major areas (independence, appointment, remuneration and effectiveness of audit process) related to audit quality, as recommended by the UK Code of Corporate Governance, provides mixed results. The findings highlight the ceremonial role of the AC in those areas” (p.351). This in the views of the author is an indication that ACs play limited roles in improving audit quality.

However, in Portugal, Alves (2013, p.143) examined whether the existence of AC has significant impact on earnings management. The study collected data from 33 non-financial listed Portuguese firms covering 2003 to 2009 and employed regression for the data analysis. Findings of the study revealed that the “existence of an AC and external auditor jointly
reduces earnings management”. This suggests that AC presence in the sampled firms can enhance the quality of financial reports by not permitting management to manipulate earnings.

Similarly in Egypt, Kamel and Elkhatib (2013) examined the role of ACs in promoting the quality of financial reporting. Using questionnaire, the study collected data from 217 respondents consisting of “accounting academics, external auditors and financial managers or senior accountants. The study revealed that the existence of a well-functioning and well-structured AC ensures prevention of fraudulent misrepresentations in firms’ annual financial statements in Egypt (p.85). Prior to this, Rahaman (2009, p.224) examined the role of “financial auditing in the fight against fraud and financial mismanagement in Ghana’s public sector”. The study indicated that financial auditing is an important tool for fighting financial fraud in the Ghanaian public sector.

From the above, although some empirical findings suggests that ACs play only limited roles in improving audit quality (see Sulaiman, 2017), the evidence generally indicate that the presence of AC in organizations can be instrumental in enhancing audit quality through the prevention of fraudulent misrepresentations in firms’ annual financial statements, monitoring and oversight functions as well as constraining earning management. In the following section, a review of the impact of the characteristics of ACs (size, independence, expertise, and gender diversity) on audit quality is presented.
2.7.1 AC size and audit quality

The impact of AC size on audit quality has been investigated by some prior studies (e.g. Appiah & Amon, 2017; Lin & Hwang, 2010; Inaam & Khamoussi, 2016; Salehi & Shirazi, 2016; Oussii & Taktak, 2018; Zgarni et al., 2016). For instance, Appiah and Amon (2017) analysed the impact of the characteristics of the AC on corporate insolvency. Data was collected from 98 insolvent and 269 solvent non-financial companies listed in UK from 1994 to 2011. The data was analyzed using logistic regression. Results of the study indicated corporate insolvency does not have significant relationship with AC size, implying that AC size does not play any role in firms’ insolvency.

On the contrary, Inaam and Khamoussi (2016) performed a meta-analysis on the impact of AC on audit quality variables. Findings revealed that the size of AC has a negative relationship with earnings management. Similarly, findings of prior meta-analyses (e.g. Lin & Hwang, 2010) indicated that AC size have a negative effect on earnings management (one of the measures of audit quality). This suggests that AC size can enhance the quality of financial and audit reports by not permitting management to manipulate earnings. In a related study in Tehran, Salehi and Shirazi (2016) examined the effect of the characteristics of an AC on quality of financial reporting and disclosure. It used a panel data of 100 listed firms on Tehran Stock Exchange (TSE) from 2013 to 2014. Results suggested that the size of an AC have significant positive impact on financial disclosure quality of the firms. From the above, it can be inferred that AC size generally can enhance audit quality by discouraging earning manipulations while promoting quality disclosures in financial reports. Hence, it is hypothesized that:
H1: AC size will have a significant positive influence on audit quality of listed firms in Ghana.

2.7.2 AC independence and audit quality

The AC independence is another characteristic of ACs that can affect audit quality. Siagian and Tresnaningsih (2011) examined the impact of AC independence on audit quality measured by total discretionary accruals and earnings response coefficient of listed firms on the Johannesburg Stock Exchange. Using regression analysis, results indicated that independent ACs significantly improve total discretionary accruals (a measure of audit quality).

Recently in Morocco, Nnadi et al. (2017) analyzed the impact of corporate governance practices on audit quality of 142 non-financial Moroccan companies. The “empirical model is tested with firms which included family businesses as well as listed and non-listed Moroccan companies” (p.507). The study indicated that the proportion of independent directors has significant positive effect on the demand for audit quality. In a related study in Tunisia, Zgarni et al.’s (2016) results of an empirical investigation of listed firms, demonstrated that the independence of the AC members improve the quality of reported financial information.

Similar results have also been found by other researchers (e.g. Appiah & Amon, 2017; Inaam & Khamoussi, 2016; Lin & Hwang, 2010). For instance, Appiah and Amon’s (2017) findings indicated that there is a negative relationship between corporate insolvency and AC independence. This means that the more the independence of the AC, the lower the occurrence of insolvency. Prior to this, Inaam and Khamoussi (2016) in their meta-analysis, revealed, that the independence of the AC have a negative relationship with earnings
management. The above empirical results suggest that the more independent ACs are, the higher the quality of audit reports. Based on this, the study hypothesized that:

\textit{H2: AC independence will have a significant positive influence on audit quality of listed firms in Ghana.}

\subsection*{2.7.3 Expertise of the AC and audit quality}

Appiah and Amon (2017) found that insolvency does not have a significant relationship with the financial expertise of an AC. On the other hand, Inaam and Khamoussi (2016) suggested that AC expertise have a negative relationship with earnings management. Similarly, findings of prior meta-analyses (e.g. Lin & Hwang, 2010) indicated that financial expertise of ACs has a negative effect on earnings management (a measure of audit quality).

The above findings are also in line with findings of other researchers (e.g. Alzeban & Sawan, 2015; Naiker & Sharma, 2009; Oussii & Taktak, 2018; Salehi & Shirazi, 2016) who found a positive impact of the expertise of AC on audit quality. For instance, In Tehran, Salehi and Shirazi’s (2016) results based on a panel data from 100 listed firms on Tehran Stock Exchange from 2013 to 2014 suggested that the expertise of an AC have a significant positive impact on financial disclosure quality of the firms. In Tunisia, Oussii and Taktak (2018) examined the effect of AC effectiveness on financial reporting timeliness of listed firms. It used 162 firm-year observations collected from listed firms in Tunisia covering 2011-2013. The study found that ACs with members who have financial expertise are significantly associated with shorter financial reporting timeliness.
Other researchers (e.g. Alzeban & Sawan, 2015; Naiker & Sharma, 2009) have also supported the above findings by demonstrating that there is a positive relationship between an AC with members who have accounting expertise and auditing experience and the quality of financial reporting. The financial expertise of AC members can allow them to handle the complexities that are often associated with financial reporting (Kalbers & Fogarty, 1993) while decreasing the potential occurrence of financial restatements (Abbott et al., 2004). In DeZoort and Salterio’s (2001) views, experts and knowledgeable accounting and auditing professionals on ACs, are more likely to understand and appreciate auditor judgments and support the auditor in auditor-management disputes compared to AC with members without such knowledge and experts. Based on the preceding discussions, it is hypothesized that:

\[ H3: \text{AC expertise will have a significant positive influence on audit quality of listed firms in Ghana.} \]

2.7.4 Gender diversity of AC and audit quality

Current global practices in corporate governance (see Konrad et al., 2008; Adams & Funk, 2012) demand equal or fairly representation of both genders since diversity on the board can produce positive effects. For instance, Thiruvadi and Huang (2011, p.483) analyzed the impact of gender diversity of ACs on firm’s audit quality using discretionary accrual. Data was collected from 320 firms from the S&P Small Cap 600, and employed regression for the analysis. The study “found that the presence of a female director on the AC constrains earnings management by increasing negative (income-decreasing) discretionary accruals”.

Recently, Solimene et al. (2017) maintained that the “diversity on the board produces positive effects due to different knowledge, skills, experiences, ideas and behaviors” (p.2). Similarly,
Pletzer et al. (2015) argued that higher number of females on corporate boards can generate positive benefits for the organization in terms of new desirable leadership skills that are introduced into the boardroom as well as strategic advantages for the organization. Moreover, the presence of females on the AC can enhance the ability of the committee to ensure higher audit and financial reporting quality through increased transparency and improved disclosure since female are generally considered to more ethical than their male counterparts. Hence, they can ensure that no fraudulent or material misstatements are allowed to prevail in the audit and financial reports. Consequently, the study hypothesized that:

\[ H4: \text{Gender diversity of the AC will have a significant positive influence on audit quality of listed firms.} \]

### 2.8 Conceptual Framework

The hypothesized relationships were summarized in the conceptual framework in Figure 2.1. From the figure, it is argued that AC size will have a significant positive influence on audit quality of listed firms in Ghana (\(H1\)) (e.g. Lin & Hwang, 2010; Salehi and Shirazi, 2016). Also, it is hypothesized that AC independence will have a significant positive influence on audit quality of listed firms in Ghana (\(H2\)) (e.g. Appiah and Amon, 2017; Nnadi et al., 2017; Siagian & Tresnaningsih, 2011; Zgarni et al., 2016). The study further argued that AC expertise will have a significant positive influence on audit quality of listed firms in Ghana (\(H3\)) (e.g. Alzeban & Sawan, 2015; Naiker & Sharma, 2009; Oussii & Taktak, 2018; Salehi & Shirazi, 2016). Finally, it is proposed that gender diversity of the AC will have a significant positive influence on audit quality of listed firms (e.g. Pletzer et al., 2015; Solimene et al., 2017). Thus, due to the commitment of ACs with high gender diversity, high financial and accounting experts, large size and high independence to ensuring that the
financial statements are error free, they have the potential to engage an auditor with high reputation like the B4 auditing firms to enhance the quality of their financial reports. The reason being that large audit firms commonly known as the Big 4 are believed to have the capacity to adequately satisfy the needs of their clients on the basis that they possess the expertise as well as the necessary technical base to embark on an audit mission (Krishnan, 2003); Mohamed & Habib, 2013).

**Figure 2.1: Conceptual Framework**

![Conceptual Framework](Author’s own framework (2018))

In examining the relationship between the AC characteristics (Aac size, gender diversity, expertise and independence) on audit quality, the study controlled for size of the firm and main corporate board size. This is because large firm may have more resources that can be invested to monitor the quality of financial and audit reports. Similarly, large corporate boards may be more effective in reducing information asymmetry (McMullen, 1996), and maintaining the quality of financial information disclosure (Barako et al., 2006) by providing
effective and regular monitoring to reduce the possibility of gross misrepresentations or breaches that may be contained in a company’s financial statements (Zgarni et al., 2016).

More so, large size of corporate board may have positive impact on audit quality because it can allow the board has access to different knowledge, skills, experiences, ideas (Solimene et al., 2017) necessary to facilitate the detection of frauds and compliance with required standards to enhance audit quality.

2.9 Summary and Conclusion

In this chapter, the theoretical underpinnings and empirical evidence of the association between AC characteristics and audit quality has been reviewed. The study employed the agency theory as the main theoretical framework to explain the impact of AC characteristics on audit quality. Moreover, although audit quality has been conceptualized from several different proxies including discretionary accruals, auditor reputation, financial reporting quality, compliance with international standards, earnings management, financial misstatements, etc., most of them may not be readily accessible in the Ghanaian context with exception of auditor reputation. Hence, auditor reputation is chosen as the proxy for audit quality. The study subsequently developed four main research hypotheses from the existing literature for empirical testing. A conceptual model was also proposed to illustrate the hypotheses.
CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the general plan of the study and the approach to arriving at the results. The overall objective of this study is to investigate the influence of AC characteristics on audit quality from the internal audit function’s perspective. The chapter begins with a detailed discussion on the research paradigms and design strategies that underpin this study. The selection and justification of the research population, sample and data sources is presented next. This is followed by description of study variables, data analysis and a detailed description of the empirical estimation model.

3.1 Research Paradigm and Philosophical Assumptions

A set of beliefs and fundamental assumptions about the individual’s worldview constitutes a research paradigm (Kuhn, 1962). Creswell (2009) described a paradigm as a set of theories and methods that exhibit the same patterns or elements in common. Although a researcher may be tagged as a positivist, post-positivist or critical realist, interpretivism or social constructionist, and pragmatist based on the philosophical assumptions (Guba & Lincoln, 1994), studies in the accounting field, and management accounting in particular, are underpinned by the two main paradigmatic traditions - positivism and interpretivism. In this study specifically, the positivist research paradigm is adopted. Positivists believe that the social world exists externally, and that objective methods should be applied to investigate its properties, and not by means of subjective inference through intuition, sensation, or reflection. This means that positivists apply the theoretical lens pertaining to the natural sciences to the social sciences.
The following explained are the justifications for the use of the positivist research paradigm based on the philosophical assumptions of ontology, epistemology, methodology and axiology. Epistemology is the application of the scientific method through the development of numeric measures to produce knowledge that is acceptable. Epistemologically, knowledge is assumed to be relevance and of significance only if it is deduced from observations that are external to reality. Testing of theories in a priori hypotheses using statistical tests characterized the research process. This work is grounded in a positivist epistemology framework in that it investigates the impacts of attributes of a phenomenon on another by testing a priori knowledge and hypotheses with empirical data based on a well-grounded theory (agency theory) in management research.

According to the axiological assumption of positivism, what is being researched is always separated from the researcher and maintained by taking the stance of ethical dimension or from the perspective of the outsider. Positivists seek to obtain law-like generalizations by conducting value-free research to measure social phenomena. The use of secondary data in the examination of the impact of AC characteristics on audit quality ensured that the values of the researcher did not influence the research results.

Ontologically, social reality is external and objective. Hence, the use of discrete data from listed firms was aimed at producing research outcomes that are objective and independent of the researchers’ knowledge. Methodologically, the “strong positivist assumption allows key variables in the study to be measured precisely in order to verify or falsify predetermined hypotheses” (Easterbay-Smith et al., 2012). The study therefore employed a hypothetico-deductive approach to ascertain the relationship between AC characteristics and audit quality.
3.2 Research Design

The study employed panel research design to examine the impacts of AC characteristics on audit quality among listed firms in Ghana. This research design involves the “pooling of observations on a cross-section of units over several time periods and provides results that are simply not detectable in pure cross-sections or pure time-series studies” (Abor, 2005, p.442; Baltagi, 2005). The choice of panel dataset over cross-sectional “data in this study is to make the findings of the study more robust as panel data helps to reduce the magnitude of a key econometric problem that often arises in empirical studies, for example, omitted variables correlating with explanatory” variables (Hsiao, 1986).

3.3 Population, Data and Sample

The study population comprised of all listed firms in Ghana. The study focused on listed firms due to availability of data as they are public firms and are mandated by regulations to publish their annual reports for easy access by members of the general public. The study used purposively method for the selection of the listed firms based on the following criteria: (1) Included companies with full annual report (not just the annual financial report) at its website or other online portals and was accessible to the researcher; (2) Excluded companies with full annual report but not for the full study period; and (3) Excluded companies with full annual report, and had ACs present but details of the structure, and the composition of the AC as well as the profile of its members are either absent and insufficient. Based on the above criteria, 34 of the listed firms were selected for the study.

Data on the study variables were collected from secondary data sources, specifically, the annual reports of the sampled firms spanning from the periods 2010 – 2013. This resulted in 136 firm-yearly observations for the analysis. Similar firm-yearly observation was used by
some previous researchers (e.g. Aboagye-Ochere et al., 2012; Agyei-Mensah, 2018; Oussii & Taktak, 2018). For example, in their examination of corporate governance and the presence of accounting/finance expert(s) on the ACs on corporate disclosure practices of listed firms in Ghana, Aboagye-Otchere et al. (2012) used data from twenty (20) firms covering five (5) years, resulting in 100 firm-yearly observations. Recently, Agyei-Mensah (2018) in the interaction effect of AC effectiveness and audit quality on voluntary disclosure quality of listed firms in Ghana used 36 firms covering four (4) years, resulting in a firm-yearly observation of 144. The preceding discussions, demonstrated that the used of 34 firms covering 4 years, and hence, a firm-yearly observation of 136 is consistent with similar studies researchers (e.g. Aboagye-Otchere et al., 2012; Agyei-Mensah, 2018) focusing on listed firms in Ghana. The sampled firms were from the financial (banking and insurance) sector (13 firms), mining sector, oil and gas (5 firms), manufacturing and sales (13 firms), agricultural sector (2 firm) and information and communication industry (1 firm).

3.4 Description of Measurement Variables

3.4.1 Dependent variable

As earlier noted, in previous studies, various indicators of audit quality have been used. These include: the auditor industry expertise and experience (e.g. Hao et al., 2018; Hoag et al., 2017), earning management and discretionary accruals (e.g. Jones et al., 2008; Lim & Tan 2010; Garcia-Blandon & Argiles-Borsch, 2017), reputation of the external auditor (e.g. Hoag et al., 2017; Mohamed & Habib, 2013; Nnadi et al., 2017; Ojala et al., 2014; Zhang et al., 2007), external audit firm size (Baxter, 2010; DeAngelo, 1981), and external auditors opinion (González-Díaz et al., 2015; Jackson et al., 2008).
In this study, reputation of the external auditor is used to proxy audit quality. This is because it is more accessible to the researcher compared to the rest. The “auditor reputation is considered a measure of the audit quality [based on the view that] as the reputation increases, the audit quality increases” (Mohamed & Habib, 2013, p. 123). Besides, the external auditors provide assurance services to shareholders on the reliability of the financial statements prepared by listed firms (Fan & Wong, 2005). In line with this, large audit firms commonly known as the Big 4 are believed to have the capacity to adequately satisfy the needs of their clients on the basis that they possess the expertise as well as the necessary technical base to embark on an audit mission (Krishnan, 2003). In addition, they not only possess the requisite industry specialization and knowledge to uncover weaknesses that are associated with different sector’s internal control conception and application (Krishnan, 2005), but also maintain higher audit quality standards by investing more in their brand reputation (Francis & Wilson, 1998).

Moreover, empirical evidence (e.g. Hoag et al., 2017; Khelif & Samaha, 2014; Rusmin & Evans, 2017) in other jurisdictions suggests that Big 4 audit firms, based on their status of international affiliation, enhance audit quality by providing high-quality and faster audit services that distinguish them from other local audit firms. Big 4 audit firms, based on their status of international affiliation, enhance audit quality by providing high-quality and faster audit services that distinguish them from other local audit firms. Hence the probability that Big 4 audit firms will issue a qualified audit opinion is relatively high. To a greater extent, Big 4 audit firms are more effective in detecting material misstatements and enhancing audit quality. They are known to facilitate compliance with mandatory disclosures by listed firms, reduce management reporting lag, and enhance corporate transparency. In this study therefore, auditor reputation which is used as a proxy for audit quality is measured as a
dummy variable where; 1 if the company is audited by a Big 4 accounting firms and 0 otherwise.

### 3.4.2 Independent variable

The independent variable is AC characteristics. Various characteristics of an AC have been proposed as indicators of how effective an AC is (Baxter, 2010). These proposed characteristics include the independence, diversity, expertise, tenure, meeting, and size, among others of the AC. The characteristics of ACs play a central role in the quality of financial reports (Ika & Ghazali, 2012; Mitchell et al., 2008; Sulaiman, 2017). This study used four AC characteristics: Size, gender diversity, independence, and expertise of AC. These AC characteristics were used due to the availability of data on them. Following (e.g. Appiah & Amon, 2017; Baxter, 2010; DeAngelo, 1981; Chan & Li, 2008), AC size was measured by the number of AC members.

Consistent with previous researchers (e.g., Alzeban, 2015; Oussii & Taktak, 2018; Zhang et al., 2007), AC independence was “measured by the proportion of external or non-executive directors on the AC”. Also, in line with previous studies (e.g., Baxter, 2010; Van der Zahn & Tower, 2004), AC expertise was measured by the proportion of members of the AC with professional qualification or backgrounds in accounting/auditing and finance. Similarly, gender diversity of AC was measured by the proportion of females on the AC.
3.4.3 Control variables

The study controls for firm size and corporate board size. Krishnan (2005) noted that companies with large corporate board size tend to have better audit quality. Similarly, large firm may have more resources that can be invested to monitor the quality of financial and audit reports.

Table 3.1 below showed the summary of the study variables and their measures or indicators.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit quality</td>
<td>Proxied by the reputation of the external auditor where 1 if the company is audited by a Big 4 accounting firms and 0 otherwise</td>
</tr>
<tr>
<td>AC size</td>
<td>The number of AC members.</td>
</tr>
<tr>
<td>AC independence</td>
<td>Proportion of external or non-executive directors on the AC</td>
</tr>
<tr>
<td>Board size</td>
<td>The number of directors on the main corporate board.</td>
</tr>
<tr>
<td>AC expertise</td>
<td>Proportion of members of AC with professional qualification or backgrounds in accounting/auditing and finance</td>
</tr>
<tr>
<td>Firm size</td>
<td>Natural logarithms of firm’s total assets</td>
</tr>
<tr>
<td>AC gender diversity</td>
<td>Proportion of females on the AC</td>
</tr>
</tbody>
</table>

3.5 Data Analysis and Empirical Model

The data was analyzed using descriptive statistics, correlation and binary logistic regression. The binary logistic regression was used to predict audit quality from selected characteristics of ACs (size, gender diversity, expertise and independence) while controlling the effect of corporate board size and firm size. Logistic regression is used for the prediction of categorical outcome variables (Anderson, Sweeney & Williams, 2008). The “choice of this type of regression model in this study is based on its suitability for working with a dependent
variable of a dichotomous nature or limited dependent variable”. That is, audit quality (1 = Big 4 auditors or 0 = Non-Big 4 auditors) as the outcome variable is categorical in nature. Logistic regression does “not make any assumptions of normality, linearity, and homogeneity of variance for the independent variables” (Anderson et al., 2008; Pallant, 2007).

The general logistic regression model takes the form:

\[
\text{logit}(p) = Y = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots + \beta_n X_n + \epsilon
\]

Where \(p\) denotes the probability that the firms have high audit quality (i.e. audited by a Big 4 auditor), \(X_1\) to \(X_i\) represent the independent determinants of household livelihood status and \(\epsilon_{it}\) is the stochastic error term.

For estimation, it can be specified as:

\[
Y_{it} = \beta_0 + \beta_1 X_{it} + \ldots + \beta_n X_{it} + \epsilon_{it}
\]

Where:

\(Y_a = \text{Dichotomous dependent variable} = \text{Audit quality (1 = Big 4 auditors or 0 = Non-Big 4 auditors)}\)

\(\beta_0 = \text{Coefficient of constant term.}\)

\(\beta_1 \ldots \beta_n = \text{Coefficient of independent variables.}\)

\(X = \text{the independent variables} = \text{AC characteristics and control variables}\)

\(\epsilon = \text{Error term.}\)

The binary logistic regression model tested is specified below:
Audit quality_{it} \\
= \beta_0 + \beta_1AC\ Size_{it} + \beta_2AC\ Expertise_{it} + \beta_3AC\ Gender\ Diversity_{it} \\
+ \beta_4AC\ Independence_{it} + \beta_5Firm\ size_{it} + \beta_6Corporate\ board\ size_{it} \\
+ \epsilon_{it} \\

Where \( i \) for individual listed firm (1, 2,...34) at time period \( t \) (1, 2,...4).
CHAPTER FOUR

RESULTS AND DISCUSSIONS OF FINDINGS

4.0 Introduction

This chapter of the study presents statistical results and discussion of the results. It is divided into two main sections. The first sections cover the empirical results while the second section results and provides a discussion of the results on the impact of AC characteristics on audit quality.

4.1 Results of the Study

The analyses covered preliminary data analysis and test of main hypotheses. Specifically, the analyses were conducted to explore preliminary association between audit quality and AC characteristics (size, independence, expertise and gender diversity) as well as the control variables (corporate board size, and firm size) using scatterplot and correlation). It also provided concise description of the variables using descriptive statistics. The main hypotheses were tested using binary logistic regression to predict audit quality from AC characteristics.

4.1.1 Linearity

The linearity between the variables was examined using scatterplot. This is aimed at establishing preliminary relationship between audit quality and AC characteristics (size, independence, gender diversity, and expertise) as well as the control variables (corporate board size and firm size). The results are presented in Figure 4.1 to Figure 4.6.
Figure 4.1 presents scatterplot results of the association between audit quality and size of ACs. From the figure, it can be inferred that there is a linear positive relationship between audit quality and AC size as well as AC gender diversity.
The Figure 4.2 is a scatterplot of audit quality and gender diversity of ACs. The results as shown in the Figure indicate that audit quality relates negatively with gender diversity of ACs of listed firms in Ghana.
Also, the scatterplot in Figure 4.3 below showed that there is a linear positive relationship between audit quality and AC expertise of listed firms in Ghana.
Moreover, the scatterplot results in Figure 4.4 below showed that there is a linear positive relationship between audit quality and AC independence.

Figure 4.4: Scatterplot of Audit Quality and Audit Committee Independence
Similarly, Figure 4.5 showed the scatterplot results of audit quality and size of listed firms. From the results, it can be inferred that there is a linear positive relationship between audit quality and listed firms’ size.
Finally, Figure 4.6 is the scatterplot and line of best fit on audit quality and corporate board size. As shown in the results, it can be concluded that audit quality is positively associated with the size of corporate board of listed firms in Ghana.

Figure 4.6: Scatterplot of Audit Quality and Main Corporate Board Size
4.1.2 Descriptive analysis

Table 4.1 presents the descriptive results. From the table, the average audit quality of the listed firms is 0.860 with a standard deviation of 0.348. Average board size of listed firms is 8.728 with a standard deviation of 2.480. The average number of members of AC of listed firms is 3.426 with a standard deviation of 1.528. Furthermore, average gender diversity of ACs is 15.0% with a standard deviation of 21.3%. This means there are significant differences in the gender diversity of AC across listed firms. Also, ACs on average are 77.80% independent with a wide variation across firms (SD = 36.30%). More so, the descriptive results revealed that on average, the financial and accounting experts constituted less than 50% (just 44.70%) of the total members of the ACs examined.

Table 4.1: Descriptive Analysis of the Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit quality</td>
<td>0.000</td>
<td>1.000</td>
<td>0.860</td>
<td>0.348</td>
</tr>
<tr>
<td>AC gender diversity</td>
<td>0.000</td>
<td>1.000</td>
<td>0.150</td>
<td>0.213</td>
</tr>
<tr>
<td>AC independence</td>
<td>0.000</td>
<td>1.000</td>
<td>0.778</td>
<td>0.363</td>
</tr>
<tr>
<td>AC expertise</td>
<td>0.000</td>
<td>1.000</td>
<td>0.447</td>
<td>0.338</td>
</tr>
<tr>
<td>AC size</td>
<td>0.000</td>
<td>7.000</td>
<td>3.426</td>
<td>1.528</td>
</tr>
<tr>
<td>Board size</td>
<td>3.000</td>
<td>18.000</td>
<td>8.728</td>
<td>2.480</td>
</tr>
<tr>
<td>Board size (logged)</td>
<td>1.100</td>
<td>2.890</td>
<td>2.123</td>
<td>0.318</td>
</tr>
<tr>
<td>Firm size (logged)</td>
<td>12.690</td>
<td>25.390</td>
<td>17.138</td>
<td>2.551</td>
</tr>
</tbody>
</table>
4.1.3 Correlation analysis

The Table 4.2 showed the correlation between audit quality, selected AC characteristics, and the control variables (firm size and the size of the corporate board). From the results, audit quality is positively and significantly related with AC size \( r = 0.27; p < 0.01 \), AC expertise \( r = 0.19, p < 0.01 \), and AC independence \( r = 0.34; p < 0.05 \). However, audit quality is negatively and significantly associated with the gender diversity of AC \( r = -0.30, p < 0.01 \). Furthermore, there is a significant positive relationship between audit quality and the control variables (firm size and corporate board size). Similarly, significant correlations existed between most of the AC characteristics. The highest correlation coefficient of 0.60 was recorded between the AC independence and expertise, which indicates that there is no significant concern with the presence of multicollinearity between the predictor variables.

Table 4.2: Correlation Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Audit quality</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. AC size (logged)</td>
<td>0.27**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. AC diversity</td>
<td>-0.30**</td>
<td>-0.07</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. AC expertise</td>
<td>0.19**</td>
<td>-0.26**</td>
<td>0.08</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. AC independence</td>
<td>0.34**</td>
<td>-0.14</td>
<td>0.17*</td>
<td>0.60**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Board size (logged)</td>
<td>0.28**</td>
<td>0.31**</td>
<td>0.30**</td>
<td>0.19*</td>
<td>0.42**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>7. Firm size (logged)</td>
<td>0.23**</td>
<td>0.24**</td>
<td>0.15</td>
<td>-0.12</td>
<td>0.18*</td>
<td>0.45**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

** Significant at 1%    * Significant at 5%
4.1.4 Hypotheses Testing

The study sought to predict audit quality of listed firms in Ghana using AC characteristics (size, independence, expertise, and gender diversity) while controlling for the effect of corporate board size and firm size. Consequently, the researcher used the binary logistic regression for the prediction. At a cutoff value of 5, the model’s overall prediction accuracy of audit quality was 94.4%, indicating that the model’s prediction accuracy is very high. Also, the Hosmer and Lemeshow test, which is used to test the “assumption that the model distinguishes the explained variable better was above the cutoff point of 0.05 indicating a good model fit” (Hosmer & Stanley, 2013).

Moreover, Cox and Snell’s $R^2$ is used to indicate the strength of the association of the model. In this model, Cox and Snell’s $R^2$ was 0.283. This suggests that the selected AC characteristics and the control variables in the binary logistic model, collectively accounted for 28.30% of the explanation in terms of why listed firms have high audit quality or not (Garson, 2014; Kleinbaum & Klein, 2010). Similarly, the Nagelkerke $R^2$ measures the strength of the association between independent variables and the outcome variable (Verma, 2013; O’Connel, 2006). In this present study, the Nagelkerke $R^2$ was 0.558, implying that 55.8% of the predictors (AC size, diversity, expertise, independence and the control variables – board size and firm size) relate to audit quality.

Besides, the overall model was significant ($\chi^2 = 41.168, df = 6, p < 0.001$), indicating that model demonstrated significant acceptability. Finally, in order to test the hypothesised relationships, the odds ratio and Wald test were used. The odds ratio measures the extent to which predictors affect the binary outcome variable while Wald test is used to identify the
predictors that make significant contributions towards the prediction of the dichotomous outcome variable (Garson, 2014; O’Connel, 2006). In doing so, the study controlled for board size and firm size. In all, four main hypotheses were tested in order to answer the four research objectives and the results presented below.

4.1.4.1 AC size and audit quality

The first research objective sought to ascertain whether AC size will significantly predict audit quality of listed firms in Ghana. From the results in Table 4.3, Wald test ($\chi^2 = 8.249, p < 0.01$) showed that there is a significant association between AC size and audit quality. The odd ratio - $\text{Exp}(B)$ further showed that an increase in AC size will increase the odd of audit quality by 231.319 times [odd ratio = $\text{Exp}(5.444) = 231.319$]. In simple terms, an increase in the number of AC size has the likelihood of increase audit quality by 231.319 times. This result provided empirical support for the first hypothesis (H1) which states that “AC size will have a significant positive impact on audit quality of listed firms in Ghana”.

4.1.4.2 AC independence and audit quality

The second research objective sought to determine the effect of AC independence on audit quality. From the results in table 4.3, the Wald test ($\chi^2 = 4.623, p < 0.05$) showed that there is a significant association between AC independence and audit quality. The odd ratio - $\text{Exp}(B)$ further showed that an increase in AC independence is likely to increase the odd of audit quality by 14.743 times [odd ratio = $\text{Exp}(2.691) = 14.743$]. This result provided empirical support for the second hypothesis (H2) which states that “AC independence will have a significant positive impact on audit quality of listed firms in Ghana”.

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4.1.4.3 AC expertise and audit quality

The third research objective aimed to determine whether AC expertise will have effect on audit quality. The empirical results ($Wald \chi^2 = 2.332, p > 0.05$) showed that there is no significant association between AC expertise and audit quality. Also, the odd ratio - $\text{Exp}(B)$ indicated that an increase in AC expertise, is likely to increase the odd of audit quality by 10.085 times [$\text{odd ratio} = \text{Exp}(2.311) = 10.085$]. But as earlier indicated, the relationship was insignificant, hence, the empirical evidence surprisingly therefore, did not support the third hypothesis (H3) that “AC expertise will have a significant positive effect on audit quality of listed firms in Ghana”.

Table 4.3: Binary Logistic Regression Predicting Audit Quality of Listed Firms

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>S.E</th>
<th>Wald $\chi^2$</th>
<th>p</th>
<th>Exp (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm size (logged)</td>
<td>0.177</td>
<td>0.213</td>
<td>0.692</td>
<td>0.406</td>
<td>1.193</td>
</tr>
<tr>
<td>Board size (logged)</td>
<td>-2.642</td>
<td>1.904</td>
<td>1.925</td>
<td>0.165</td>
<td>0.071</td>
</tr>
<tr>
<td>AC size (logged)</td>
<td>5.444**</td>
<td>1.895</td>
<td>8.249</td>
<td>0.004</td>
<td>231.319</td>
</tr>
<tr>
<td>AC gender diversity</td>
<td>-4.870**</td>
<td>1.691</td>
<td>8.290</td>
<td>0.004</td>
<td>0.008</td>
</tr>
<tr>
<td>AC expertise</td>
<td>2.311</td>
<td>1.513</td>
<td>2.332</td>
<td>0.127</td>
<td>10.085</td>
</tr>
<tr>
<td>AC independence</td>
<td>2.691*</td>
<td>1.251</td>
<td>4.623</td>
<td>0.032</td>
<td>14.743</td>
</tr>
</tbody>
</table>

$Nagelkerke R Square = 0.558$

$Cox & Snell R Square = 0.283$

$Omnibus Tests (Overall $\chi^2$) = 41.168***$

$Prediction Correctness = 94.40%$

$NB: **, * Significant at 1% and 5% respectively;$

4.1.4.4 Gender diversity of AC and audit quality
The fourth and final research objective sought to examine whether gender diversity on ACs can have significant positive impact on audit quality. The empirical results \( \text{Wald } \chi^2 = 8.290, \ p < 0.01 \) showed that there is significant association between AC expertise and audit quality at 1% level of significance. According to the odd ratio - \( \text{Exp} (B) \), an increase in AC gender diversity, is likely to decrease the odd of audit quality by 0.008 times \( \text{odd ratio} = \text{Exp} (-4.870) = 0.008 \). This empirical result therefore did not support hypothesis (H4) that “gender diversity of the AC will have a significant positive impact on audit quality of listed firms”.

4.1.4.5 Control variables and audit quality

The odd ratio - \( \text{Exp} (B) \) suggests that an increase in firm size will increase audit quality of listed firms by 1.193 times \( \text{odd ratio} = \text{Exp} (0.177) = 1.193 \). However, an increase in board size is likely to decrease audit quality by 0.071 times \( \text{odd ratio} = \text{Exp} (-2.642) = 0.071 \). However, the results firm size \( \text{Wald } \chi^2 = 0.692, \ p > 0.05 \) and corporate board size \( \text{Wald } \chi^2 = 1.925, \ p > 0.05 \) showed insignificant relationships with audit quality.

4.2 Discussion of Findings

The study examined the effect of AC characteristics (size, independence, expertise, and gender diversity) on audit quality of listed firms in Ghana. From the results above, it can be inferred that AC size, gender diversity of AC and AC independence made significant contributions to the prediction of audit quality of listed firms in Ghana. However, AC expertise, corporate board size and firm did are not reliable predictors of audit quality of listed firms in Ghana. The following discusses these findings in detail.
4.2.1 AC size and audit quality

The first research objective sought to ascertain whether AC size will have a significant positive impact on audit quality of listed firms in Ghana. The study found that AC size contributed significantly and positively to the prediction of audit quality of listed firms in Ghana. This result indicates that higher number of members of AC can potentially improve audit quality of listed firms in Ghana. Although this result contradicted findings of other researchers (e.g. Appiah & Amon, 2017) who found that AC size has no effect on audit quality related outcome, it is consistent with majority of the prior studies that showed that AC size can have significant positive impact on audit quality (e.g. Inaam & Khamoussi, 2016; Lin & Hwang, 2010; Salehi & Shirazi, 2016).

This result can be explained from the perspective of the agency theory and the Ghanaian popular adage that “two heads are better than one”. The result means that a larger AC can accommodate members with rich experience and knowledge to guarantee audit quality through effective monitoring and by insisting that the external auditors’ recommendations are fully implemented to ensure compliance. The result further suggests that AC with large numbers can guarantee audit quality by appointing experienced and specialist external auditors who will not want to compromised on their hard earned reputation by ensuring that errors and material misstatements are vigorously detected. And because of their large numbers, they will be in position to thoroughly review auditors’ findings and pressure management to resolve them to improve the quality of disclosures in the company’s accounting and financial records and information.
4.2.2 AC independence and quality

The second research objective sought to determine the effect of AC independence on audit quality. In this regard, research hypothesis was formulated and tested. The results provided empirical evidence in support of hypothesis that AC independence has made significant positive contribution to the prediction of audit quality of listed firms in Ghana. This result means that when ACs of listed firms become more independent, there is a likelihood that the quality of their audit reports will improve. This empirical finding supported the results of previous studies (Siagian & Tresnaningsih, 2011; Nnadi et al., 2017; Inaam & Khamoussi, 2016; Lin & Hwang, 2010; Zgarni et al., 2016) that the independence of the AC members improve the quality of reported financial information.

This result implies that directors who are designated as outside directors on ACs can assist in alleviating conflicts that arise between upper management and shareholders through monitoring to improve audit quality (Forker, 1992). Furthermore, from the perspective of the agency theory, an “existence of AC with a higher proportion of independent directors should reduce the agency cost and ensure greater quality of financial disclosures” (Appiah & Amon, 2017; Forker, 1992; Zhang et al., 2007).

4.2.3 AC expertise and audit quality

The third research objective aimed to determine whether AC expertise will have impact on audit quality. The results showed that although AC expertise has a positive association with
audit quality. The result however was not statistically significant at any of the conventional levels of significance. The empirical evidence surprisingly therefore did not support the third hypothesis that AC expertise will have a significant positive impact on audit quality of listed firms in Ghana. This result is inconsistent with similar studies (e.g. Alzeban & Sawan, 2015; Naiker & Sharma, 2009; Oussii & Taktak, 2018; Salehi & Shirazi, 2016) that found a significant positive impact of the expertise of AC on audit quality.

This means that the claim that an effective “AC with relevant expertise is expected to enhance approaches to auditing which contribute to improved audit quality” (Mitchell et al., 2008; Sulaiman, 2017, p.351) while decreasing potential the occurrence of financial restatements (Abbott et al., 2004) could not be supported by the findings of this study. This insignificant positive result could mean that although experts on ACs make contributions to improving audit quality, their contributions are yet to have significant impact in terms of enhancing the quality of audit and financial reports. This may be attributed to the generally low representation of auditing, finance and accounting professionals on ACs of most of the listed firms examined. This is evident in the descriptive results that on average, the financial and accounting experts constituted less than 50% (just 44.70%) of the total members of the ACs examined.

4.2.4 Gender diversity of AC and audit quality

The fourth research objective sought to examine whether gender diversity on ACs can have significant positive impact on audit quality. The empirical results showed that gender diversity of AC has a significant negative association with audit quality. This empirical result
therefore did not support hypothesis (H4) that gender diversity of the AC will have a significant positive impact on audit quality of listed firms. This suggests that the more gender diverse ACs become, the lower the quality of audit reports. This negative result contradicted expected positive results and findings of prior studies (e.g. Thiruvadi & Huang, 2011) that showed significant positive result. This result however supported Milliken and Martins’s (1996) assertion that diversity itself is a double-edged sword. It can create benefits to advance the objectives of the board and its sub-committees at the same time lead to undesirable outcomes such as conflicts in the boardroom.

This finding may therefore suggest as ACs become more gender diverse, the potential for misunderstanding resulting from differences in opinion on how to resolve certain disclosure and material misstatements in the financial and accounting statements increases. This misunderstandings and differences in opinions and approaches if not resolved timely can have negative implications for audit quality as the issues may remained unresolved. Besides, in the Ghanaian culture generally, women are expected to be respectful and submissive to their male counterparts. This culture practices and assumptions could have potentially influenced this result. The reason being that if women on the AC disagree always of often rather than agree with the males on the board over certain disclosure and material misstatements in the financial and accounting statements, the male members could be offended as they may felt disrespected. As a result, they may find ways to intimidate females, thereby discouraging them from making further contributions that can potentially advance the course of the committee’s effectiveness.

4.2.5 Firm size and corporate board size (control variables) and audit quality
Furthermore, the empirical results showed that the firm size and corporate board size did not make significant contributions to the prediction of audit quality. This result is surprising because it is believed that large firms are well-resourced and are expected to engage reputable and specialist audit firms like the Big 4 to improve their audit quality. This result means that firm size is not a reliably determinant of audit quality among listed firms in Ghana, and further suggests that both large and small firms tend to engage similar category of auditors. The results therefore indicate that the quality of the audit and financial reports of listed firms in Ghana may be due to other factors such as AC size and independence as earlier demonstrated by the logistic regression results rather than the firm size.

Similarly, corporate board size showed an insignificant negative association with audit quality. This is another surprising finding since large corporate boards are expected to be more effective in reducing information asymmetry (McMullen, 1996), and maintaining the quality of financial information disclosure (Barako et al., 2006) by providing effective and regular monitoring to reduce the possibility of gross misrepresentations or breaches that may be contained in a company’s financial statements (Zgarni et al., 2016). The reason being that large size of corporate boards allow the board has access to different knowledge, skills, experiences, ideas (Solimene et al., 2017) necessary to facilitate the detection of frauds and compliance with required standards to enhance audit quality. It further contradicted the claim of the agency theory that corporate boards have a “very important role in solving agency problems and to ensuring a balance between the interests of shareholders and managers” (Solimene et al., 2017).
However, as shown by the results, large corporate board size rather makes negative but insignificant contribution to the prediction of audit quality of listed firms in Ghana. This seems to indicate that large board size depletes the capacity of the firm to engage the services of reputable auditors through the huge compensation they withdraw from the limited resources available to the firm to pay for Big 4 auditors to improve their audit quality.
CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This last chapter draws the conclusions arising from the study, the recommendations, and the policy implications of the findings. It also presents the shortcomings and limitations that characterized the study based on which avenues for further studies are identified. In this regard, first, a summary of the key findings as discussed in Chapter four is presented. This is followed by a summary of the conclusions drawn and the policy and practical implications of such conclusions to listed companies, regulators, and auditing firms. The chapter ends with some recommendations based on the key findings and the conclusions drawn, the key contribution of the study is specified as well as the limitations and directions for future research are finally presented.

5.1 Summary of Findings

Auditing is said to be in a state of crisis since the occurrence of the high profile financial scandals in the early 2000s leading to the demise of Enron, WorldCom, and other financial giants. This is because the auditing functions failed to protect investors and the general public by assuring the integrity and credibility of the financial reports, leading to the huge financial crises in the early 2000s. This in turn has thrown auditing into a state of crises as the scandal has significantly reduced the confidence of investors in the credibility of financial reports and information as well as the quality of the associated financial statement audits. It has
consequently brought into question the role and effectiveness of ACs in protecting the integrity, credibility and quality of audit and financial reports that are generated for the consumption of financial information users. Hence, the aim of this study was to examine the impacts of the characteristics of AC that can predict audit quality in Ghana, using empirical evidence from listed firms in Ghana.

To achieve this general objective, the study adopted the positivist research paradigm and quantitative research approach. The study population comprised of all listed firms in Ghana. The study focused on listed firms due to availability of data as they are public firms and are mandated by relations to publish their annual reports for easy access by their shareholders, investors and members of the general public. Thirty-four (34) of the listed firms were purposively sampled. Data on the study variables were collected from secondary data sources, specifically, the annual reports of the sample firms spanning from the periods 2010 – 2013. This resulted in 136 firm-yearly observations for empirical testing of the research hypotheses. The data was analysing using descriptive statistics, Pearson correlation and binary logistic regression. Below are the summary of the research findings of the four hypotheses that were tested.

5.1.1 AC size and audit quality (H1)

The first research objective sought to ascertain whether AC size will have a significant positive impact on audit quality of listed firms in Ghana. The study found that AC size contributed significantly and positively to the prediction of audit quality of listed firms in Ghana. This result indicates that higher number of members of AC can potentially improve audit quality of listed firms in Ghana. Hence, hypothesis (H1) was supported. The result is
consistent with majority of the prior studies that showed that AC size can have significant positive effect on audit.

### 5.1.2. AC independence and quality (H2)

The second research objective sought to determine the effect of AC independence on audit quality. In this regard, research hypothesis was formulated and tested. The empirical results suggest that AC independence has made significant positive contribution to the prediction of audit quality of listed firms in Ghana. This result means that when ACs of listed firms become more independent, there is a likelihood that the quality of their audit reports will improve. The results provided empirical evidence in support of hypothesis (H2) that AC independence will have a significant positive impact on audit quality of listed firms in Ghana.

### 5.1.3 AC expertise and audit quality (H3)

The third research objective aimed to determine whether AC expertise will have impact on audit quality. The results showed that AC expertise has a positive association with audit quality. However, its contributions to the prediction of audit quality were not statistically significant at any of the conventional levels of significance. This result is inconsistent with similar studies that found a significant positive impact of the expertise of AC on audit quality. This finding may be attributed to the generally low representation of auditing, finance and accounting professionals on ACs of most of the listed firms examined. The empirical evidence surprisingly therefore did not support the third hypothesis (H3) that AC expertise will have a significant positive impact on audit quality of listed firms in Ghana.
5.1.4 Gender diversity of AC and audit quality (H4)

The fourth research objective sought to examine whether gender diversity on ACs can have significant positive impact on audit quality. The empirical results showed that gender diversity of AC has a significant negative association with audit quality. This suggests that the more gender diverse ACs become, the lower the quality of audit reports. This negative result contradicted expected positive results and findings of prior studies. This empirical result therefore did not support hypothesis (H4) that gender diversity of the AC will have a significant positive impact on audit quality of listed firms.

5.1.5 Firm size and corporate board size (control variables) and audit quality

The empirical results further showed that the firm size and corporate board size as control variables did not make significant contributions to the prediction of audit quality. The insignificant positive contribution of firm size in the prediction of audit quality is surprising because it is generally believed that large firms are well-resourced and are expected to engage reputable and specialist audit firms like the Big 4 to improve their audit quality.

Similarly, corporate board size’s insignificant negative association with audit quality is another surprising finding since large corporate boards are expected to be more effective by providing effective and regular monitoring to reduce the possibility of gross misrepresentations or breaches that may be contained in a company’s financial statements.

5.2 Conclusion

Corporate failures have become a common occurrence in recent times in Ghana. Notable examples include the failure of UT Bank and Capital Bank. These developments have
shocked many investors and members of the general public as their audited financial reports have not sent any signal about their poor states. Even though many factors could be responsible for what befell these institutions in Ghana, it suggests an apparent audit quality problems and irresponsibility on the parts of the ACs as they seem not to have discharge their watchdog roles in an effective manner. This consequently raises bigger questions about the role of ACs in safeguarding the quality of financial and their associated audit reports provided by firms in Ghana to financial information users. Hence, this study sought to examine the impacts of the characteristics of AC on audit quality in Ghana, using empirical evidence from listed firms in Ghana.

Based on the empirical results, it is concluded that AC size and independence make significant positive contributions to the prediction of audit quality of listed firms in Ghana. Similarly, although there is a significant positive correlation between AC expertise and audit quality, it made insignificant positive contribution to the prediction of audit quality in the prediction model. Inferring from these results, the study argued that although it currently made an insignificant contributions, AC expertise could make a significant contribution to the prediction of audit quality, if the current low (that is, an average of 44.70%) representation of auditing and accounting experts on ACs of listed firms could be increased.

However, gender diversity of AC made significant negative contributions to the prediction of audit quality of listed firms. It is thus inferred that the more gender diverse ACs become, the lower the quality of audit reports. This negative result contradicted expected positive results and findings of prior studies. It however seems to give credence to the view that diversity itself is a double-edged sword. This could be due to differences in background, cultural and
ethical values, among others that can potentially create problem among AC members in terms of which approach, suggestion or solution is optimal or effective.

Moreover, large corporate board size makes negative but insignificant contribution to the prediction of audit quality of listed firms in Ghana, thereby suggesting that large board size depletes the capacity of the firm to engage the services reputable auditors through the huge compensation they draw from the limited resources available to the firm to pay for Big 4 auditors to improve their audit quality. Relatedly, the study concluded that firm size did not make significant contributions to the prediction of audit quality, and further suggests that both large and small firms tend to engage similar category of auditors.

Overall, it is concluded that AC size, gender diversity of AC and AC independence made significant contributions to the prediction of audit quality of listed firms in Ghana. However, AC expertise, corporate board size and firm are not reliable predictors of audit quality of listed firms in Ghana. More so, it can be generally inferred that the characteristics of ACs in firms play significant role in the financial reporting process and the promotion of quality audit reports. In this regard, the constitution and maintenance of effective ACs by firms will enhance the quality of the audit reports in financial statements issued to users.

5.3 Implications and Recommendations

5.3.1 Practical Implications

The findings of this study have some implications for practices. First, the findings imply that increasing AC size can improve audit quality. It is therefore suggested that management and
boards of the listed firms need to increase the size of their ACs through the appointment of new board members, where necessary to help guarantee the quality of their audit reports. This is because large AC size may be in better position to effectively scrutinized external auditors’ reports and findings and put pressure on the internal audit function and management to ensure compliance and prevent their future occurrence.

Second, the results showed that AC independence improves audit quality. This implies that the board of listed firms should ensure that most of the members of the audit sub-committee are non-executive or independent directors. This can allow the committee to objectively evaluate and address all frauds and material misstatements detected by auditors. Again, a more independent AC is likely to appoint reputable and specialist external auditors to help them improve audit quality.

Third, although AC expertise has insignificant positive impact on audit quality, it showed a significant positive correlation with audit quality. Besides, it was realized that on average, financial and auditing experts on the AC of the listed firms is generally low, they constitutes just 44.70%. The findings generally therefore, suggest that the expertise of ACs of listed firms could make contributions to the prediction of audit quality, if the current low representation of experts on ACs of listed firms could be increased. Consequently, the researcher urges managers of listed firms to appoint more auditing, finance and accounting experts as it is likely to improve audit quality.

Fourth, the findings suggest that as ACs become more gender diverse, the more the potential for misunderstanding possibly resulting from differences in opinion and approach on how to resolve certain disclosure and material misstatements in the financial and accounting
statements which in turn negatively affect audit quality. A potential way of eliminating the negative impact of a gender diverse AC on audit quality is to cautiously select AC members with similar cultural, professional and ethical backgrounds. Alternatively, it implies that listed firms may strive to keep to minimum the gender diversity of their ACs as a highly gender diverse AC can have destructive impact on audit quality in the Ghanaian context.

5.3.2 Policy Implications

This study explored the association between two mechanisms of corporate governance that ensures that financial information is free from material misstatements and errors: the AC and audit quality. Although one of the requirements of companies listed on the Ghana Stock Exchange is to have in place a vibrant AC, it is important to reinforce this requirement as the characteristics of ACs can contribute significantly to the prediction of audit quality. Also, the mandatory requirement to have independent and financial expert committees within the AC should be reinforced.

5.4 Contributions of the Research

This study has empirically examined the influence of AC characteristics on audit quality of listed firms in Ghana. The study therefore offers three key contributions to literature. First, the relationship between AC and audit quality has been examined by several researchers (e.g. Alzoubi, 2016; Inaam & Khamoussi, 2016; Baxter & Cotter, 2009). However, the existing research findings on the impacts of the characteristics of AC on audit quality showed mixed results. Consequently, some researchers (e.g. Brennan & Kirwan, 2015; Gendron, 2009) called for more empirical research to help in understanding how ACs affect audit quality, and related outcomes like financial reporting quality. Hence, this study therefore made a
contribution to the literature by responding to these future research calls by providing further empirical evidence to enhance stakeholders’ understanding of the impact of AC characteristics on audit quality.

Furthermore, studies examining the impact of AC characteristics on audit quality remain unexplored in the Ghanaian auditing field. Most of the studies examining the impact of the characteristics of the AC on audit quality were conducted in foreign and advanced economies’ contexts while there is dearth of similar studies in emerging and developing economies contexts such as Africa and Ghana in particular. Related studies on the topic in Ghana tend to focus on assessing corporate governance practices, such as the selection of corporate board members, among others, (e.g. Aboagy-Otchere et al., 2012; Agyemang & Castellini, 2015; Fiador, 2013; Bokpin, 2009; Simpson, 2014) and their impacts on corporate performance. Yet, based on the literature reviewed, none of the studies have investigated the effect of the characteristics of AC on audit quality in Ghana in particular. In this regard, the study has made contribution to the literature based on context, specifically, the Ghanaian context.

Again, although few studies (e.g. Pletzer et al., 2015; Solimene et al., 2017) have examined the impact of board diversity on the effectiveness of corporate boards and firms, research on the particular influence of gender diversity of ACs on audit quality is rare globally (with few exceptions, e.g., Thiruvadi & Huang, 2011) and specifically in Ghana. This study therefore has made a contribution to the literature by demonstrating that a highly gender diverse AC in developing economies like Ghana can have adverse consequences on audit quality.
5.5 Limitations of the Study and Recommendations for Future Research

5.5.1 Limitations of the study

The findings of this study may be limited due to the following reasons: First, the study sought to assess the impact of AC characteristics on audit quality of listed firms in Ghana. Hence, its findings may not apply to other listed firms in other countries and contexts. Secondly, the findings may be limited to only listed firms in Ghana and therefore cannot be generalized to non-listed firms due to differences in regulatory requirements.

Thirdly, although the aim was to use all listed firms, due to problems with data availability, only 34 firms were used. This suggests that the results may be limited to only the sampled listed firms and not all listed firms in Ghana. Fourth, not all characteristics of ACs were investigated. For example, the impact of AC meeting, among other characteristics on audit quality was not examined because of data accessibility issues. This can limit the findings of the study.

Fifth, the role moderators like firm origin and ownership as well as mediators such as AC members’ ethical values, among others were not explored in the relationship between AC characteristics and audit quality. Again, there are various measures of audit quality, for example, earning management, accrual, and reputation. This study used reputation as a proxy for audit quality. Reputation is based mostly on perception and not reality. The study’s findings therefore may be limited in this regard.
More so, the study used purely quantitative approach, which does not generally offer opportunities for the generation of rich and deep insights into the topic. More so, although listed firms generally are expected to be more transparent with respect to their financial report, some engage in manipulation of financial results. Hence, the use of data from the annual reports for the study can potentially limit its findings.

5.5.2 Recommendations for Future Research

Based on the above limitations of the study, the researcher recommended that there is need for future studies to examine the impact of AC characteristics on audit quality in other countries, especially in Africa to enhance stakeholders’ understanding on the topic. Secondly, future studies may perform comparative analysis of the impact of AC characteristics on audit quality between listed and non-listed firms. Third, where data is available, it is suggested all the listed firms be examined. Relatedly, future studies may include other AC characteristics which were not explored in this study like AC meeting and AC tenure in their analysis.

Again, future research should employ the mixed method in the investigation of how AC characteristics affect audit quality. Finally, future research may test the role of the role moderators like firm sector and origins as well as mediators such as AC members’ ethical values, among others in the relationship between AC characteristics and audit quality.
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University of Ghana http://ugspace.ug.edu.gh


Ghana Stock Exchange (GSE) Listing Regulations (1990), GSE Listing Regulations, LI 1509 as amended.


