THE IMPACT OF AUDIT COMMITTEE CHARACTERISTICS ON FINANCIAL PERFORMANCE OF INSURANCE FIRMS IN KENYA

ISABEL NJERI MWANGI

A RESEARCH PROJECT PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES, UNIVERSITY OF NAIROBI

OCTOBER, 2021

DECLARATION

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

Signed: isabelnjeri Date: 26/10/2021

ISABEL NJERI MWANGI

D61/6085/2017

This research project has been submitted for examination with my approval as the University Supervisor.

Signed: Date: 25/10/2021

PROF. JOSIAH ADUDA

PROFESSOR OF FINANCE

UNIVERSITY OF NAIROBI

ACKNOWLEDGEMENTS

A number of persons merit my profound appreciations for being so supportive in this project. First, I would like to thank the Almighty God for good health and the wealth to undertake this study. I also wish to thank the following for their involvement towards the conclusion of this proposal: My supervisor Prof. Josiah Aduda who was always available for me whenever I needed him. I particularly appreciate his concern and for keeping me on my toes. Gratitude goes to the lecturers of the Faculty of Business and Management Sciences, University of Nairobi, who devotedly imparted their knowledge and skills throughout the course.

DEDICATION

To my family for their monetary and moral encouragement, May the Almighty God, reward them.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ABBREVIATIONS

AC	Audit Committee
ANOVA	Analysis of Variance
CEO	Chief Executive Officer
DEA	Data Envelopment Analysis
EPS	Earnings Per Share
FP	Financial Performance
IIA	Institute of Internal Auditors
IRA	Insurance Regulatory Authority
NPV	Net Present Value
OECD	Organization for Economic Cooperation and Development
ROA	Return on Assets
ROE	Return on Equity
SEC	Securities and Exchange Commission
SPSS	Statistical Package for Social Sciences
USA	United States of America
VIF	Variance Inflation Factors

ABSTRACT

The issue of audit committee characteristics is an area of interest to researchers due to its impact on the firm's financial performance. Some companies have experienced different results depending on how they embrace corporate governance issues. Firms which have embraced good audit committee practices are in a position to satisfy major stakeholders. On the other hand, companies which fail to embrace good audit committee practices have experienced difficulties. This research sought to bring out the effect of audit committee characteristics on financial performance among insurance firms in Kenya. The research established the effect of AC independence, AC tenure, AC size, AC financial expertise, AC meetings and AC multiple directorship on financial performance among insurance companies. Underwriting risk, liquidity and solvency margin were used as the control variables in the model. Descriptive research design was used. The target population was the 54 insurance firms in Kenya. There are 54 insurance companies in Kenya but only 49 provided complete data set. Research variables data were derived from audited company's annual financial statements from 2016 to 2020 for all 49 companies making 245 observations. Regression and correlation analysis were used to test the study hypotheses by establishing the relationship between audit committee characteristics and performance. The study found that AC independence (β=0.297, p=0.006); AC financial expertise (β=0.137, p=0.020) and solvency margin (β=0.156, p=0.010) had a positive and significant relationship with financial performance among insurance firms. Underwriting risk has a significant negative effect on performance (β=-0.422, p=0.000) while AC tenure, AC size, AC meetings, AC multiple directorship and liquidity were not statistically significant. The results also indicated R^2 of 0.238 which implied that the selected independent variables contributed 23.8% to variations in performance. The study recommends that insurance firms should strive to have finance experts in their audit committees as this contributes significantly to financial performance. Policy makers such as IRA should also come with policies and guidelines of the proportion of finance experts in an audit committee. The study also recommends that IRA which is the regulator should make it mandatory for all insurance firms to have independent audit committees.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Audit committees are a vital mechanism that institutions need because of their ability to monitor the behaviour of the firm's management to enhance transparency. Audit committees are identified as effective means for corporate governance that reduce the potential for fraudulent financial reporting. They can be very effective not only in providing objective oversight of the accounting of an organization, but also in helping to set an ethical "tone at the top" (Stein, 2013). How a firm's audit committee is structured, has a direct effect on its capacity to deliver and this is likely to have a bearing on the financial performance of the organization. An effective audit committee affects the firm's long-term and short-term organizational goals. Numerous studies have supported that audit committee is likely to improve financial performance and thus shareholder value (Korent, Dundek & Calopa, 2014). A lack of an effective audit committee denies the companies robust and harmonized decisions and is reflected in their financial performance (Okiro, Aduda & Omoro, 2015).

On a theoretical perspective, this study draws support from agency theory, stakeholder theory and stewardship theory that have attempted to elaborate how audit committee relates to financial performance. Jensen and Meckling (1976) agency theory looked into the distinction between ownership and control and the monitoring activities of the board. The board solves the agency problems between executive and owners by replacing and compensating managers that fail to serve the interest of the shareholders which is value creation. Freeman (1984) stakeholder theory draws a distinction between agency theory and other stakeholder theorists in that the agency theory only looks at the role of managers in serving stakeholder's interests while the foregoing

explores a network of relationships with the suppliers, business partners and employees. According to the stewardship theory, directors and executives manage their careers so as to portray their stewardship to their organizations. This is based on the assumption that the board activities of the management correspond with the interests of the shareholder meeting (Donaldson & Davis, 1991).

The effectiveness of audit committee has been discussed a lot in recent times following the collapse of mega corporations such as Enron, Global Crossing and WorldCom in the early 2000s and the more recent 2008 credit crisis. The dip in investor confidence following the revelations of the amount of money lost in these scandals necessitated legislation and regulations to control corporate governance, especially in publicly owned firms. The Sarbanes-Oxley Act was then passed by the US Congress to this effect, and the Securities and Exchange Commission (SEC) passed stricter regulations for listed companies in the US (Monks & Minow, 2011). In Kenya, firms such as Blue Shield Insurance, Kenya National Assurance, Standard Assurance, among others have been affected by corporate governance issues (Luyima, 2015). Audit committee characteristics are therefore important in ensuring that the management's decisions are kept in check for the sake of protecting the shareholders' and insured parties' interests.

1.1.1 Audit Committee Characteristics

The audit committee is an administration system and control instrument that provides oversight of the financial reporting process, the audit process, the company's system of internal controls and compliance with laws and regulations (Amudo & Inanga, 2009). Audit committees are expected to perform different functions, for example oversight, evaluation, monitoring, assurance services of management to mitigate

agency costs (Abbott, 2000). Audit committee also has influence to initiate organizational change and facilitate processes that support the organizational mission (Adari, 2007). Further, the audit committee seeks to protect the owner's interest in an increasingly competitive environment while maintaining managerial professionalism and accountability practices (Beeler, Myers & Marcus, 2008).

The audit committees are expected to carry in depth interrogation of the existing public entity internal controls as well as the operation of the audit function of the public service (Mutai, 2011). Effective audit committees in the public sector are important especially during this moment when countless financial scandals have plagued the public institutions. On the international scene these committees have been critiqued due to their failure to pinpoint and put an end to the fraudulent activities within the Enron Corporation following its downfall (Ogoro & Simiyu, 2014).

In both public and private sector, audit committees are required to have a number of characteristics for effective operation in their roles of vetting the integrity of financial statements. The characteristics that include: director independence which is represented by having the proportion of independent nonexecutive directors in the board, tenure of the directors, size of the audit committee, financial expertise for the audit committee, frequency of committee meetings and multiple directorships in the board have been used as proxies for evaluating the effectiveness of these committees in Kenya (Ogoro & Simiyu, 2014). The current study adopted these characteristics as proxies in measuring audit committee.

1.1.2 Financial Performance

Almajali, Alamro and Al-Soub (2012) referred to this as a measurement of a firm's ability to achieve set out objectives like profitability. It is the intensity with which the

financial criterion has been met or exceeded. It shows how the firm's objectives have been met. As explained by Baba and Nasieku (2016) it indicates the utilization of company assets to earn revenues thereby giving stakeholders a guide to making decisions. Nzuve (2016) states that, the firm's health is significantly dependent on its financial performance which is an indicator of the firm's strengths and weaknesses. Additionally, the government and regulatory authorities are concerned with bank performance for regulatory purposes.

Financial performance is paramount since it is applied in portraying the efficiency and effectiveness of an organization's resources. And this in turn has the likelihood of increasing an organization's benefits (Nyamita, 2014). FP is critical in any business setup, it aids the shareholders in the determination of the investment whether to continue with the investment or not and is gauged from the current performance (Lin, 2008). Investment analysts also rely on the FP information in analyzing an entity's ability to realize revenue and its capacity to expand which is critical for future growth. Long term survival of any entity is dependent on FP; this is based on the fact that profitable entities are more likely to attract more investors who can inject more capital to aid in future expansion and growth there by surviving in any business competitive environment (Omondi & Muturi, 2013).

Financial performance measures include but are not limited to the following ratios: Return on Equity (ROE) and Return on Assets (ROA). ROA measures the capability of the firm to derive profits from utilization of assets (Milinović, 2014). It is derived using the operating profit and the total assets. Ngatia (2012) mentioned that the ROA, firm size, ROE and ROS were measures of FP. Carter (2010) denoted FP by Tobin's Q and ROA and Wang and Clift (2009) utilized ROA and ROE. The three mostly

preferred measures include ROA, ROE and Tobin Q. ROA shows the profitability as related to total assets while ROE shows profitability in relation to equity contribution. Tobin Q indicates the ratio of market value of equity to book value of equity (Mwangi & Murigu, 2015). The current study used ROA to measure financial performance.

1.1.3 Audit Committee Characteristics and Financial Performance

According to the agency theory, managers have selfish interest and will only work towards maximizing shareholder's returns if there exist efficient corporate governance structures such as effective audit committees that are likely to monitor and punish wrong doing (Jensen & Meckling, 1976). On the other hand, the stewardship theory suggests that the governance issues that arise in organizations do not necessary emanate from executive but rather from the decisions of other players such as regulators and investors in their pursuit of self-fulfilling motives (Donaldson & Davis, 1991).

Shleifer and Vishny (1997) found out, implementation of a good audit committee structure helps companies to access more funding and increase returns which results in an improvement in their financial performance. An effective audit committee increases the willingness of investors to invest in such companies. In order to compete effectively in a dynamic world, firms must be continually innovative and adapt good audit committee practices and frameworks; in order to grasp new opportunities and meet new demand (OECD, 2012).

There are varied conclusions by a number of past studies on the relationship between audit committee and financial performance. Majority of past research agree that audit committees are vital in financial performance. There are two key ways in which audit committee contributes to financial performance. First, audit committee greatly help by

examining the operational practices and policies of a company and by doing so detecting any possible loopholes through which fraudulent activities could be executed. This therefore gives the company a chance to seal these loopholes with the help of the decisions and opinions given by the auditors (Iyer & Samociuk, 2016).

1.1.4 Insurance Firms in Kenya

The Kenyan insurance industry is under the regulation of the Insurance Act (CAP 487 of the Laws of Kenya) as the principal legislation and the Insurance Regulatory Authority (IRA) regulates it. This industry is composed of a number of players, including insurance companies, reinsurance companies, insurance intermediaries (brokers, medical insurance providers and agents) and insurance service providers (claims settling agents, loss assessors, surveyors, investigators and risk managers) all of whom are licensed and regulated by IRA. As of today, there are a total of 59 regulated insurance underwriters operating in the Kenyan insurance market including 54 insurance companies and 5 reinsurance companies. Of the 54 insurance companies, 25 insurers are licensed to underwrite general (non-life) insurance business, 18 underwrite long term (life) business while 11 companies operate as composites (underwriting both life and non-life business) (IRA Annual Report, 2019).

IRA mentions specific areas of focus for corporate governance which are discipline, transparency, independence, accountability, responsibility, fairness, probity, social responsibility and accurate disclosures on financial matters, performance, ownership, governance arrangements, legal and regulatory compliance (IRA, 2018). IRA charges the Board of Directors with the responsibility to oversee the affairs of the insurance company and this responsibility cannot be avoided even when the Board has delegated responsibility to committees. The regulations require the board to form committees to

deal with audit, investment, risk management, asset liability management, policy holder protection, ethics and nomination and recruitment. The Board is also responsible for appointing a principal officer, an actuary and an independent auditor (IRA, 2018).

In regards to financial performance, IRA (2017) records that the total profits before tax decreased to KShs. 12.8 billion from Kshs.14.1 billion in 2015 and 2016 respectively. This indicates that growth of insurer is poor which is at 2.7 % of Gross Domestic Product (GDP). In addition, BlueShield Insurance Companies is under statutory management after a prolonged poor financial performance. Equally, Real Insurance Company was acquired by Britam due to uncertainty in its going concern. Other insurance companies that have gone under include: Standard Assurance, Kenya National Assurance Company, Access Insurance Company among others and Concord Insurance Company. There is therefore need to establish influence of corporate governance on growth of insurance firms in Kenya.

1.2 Research Problem

Agency theory indicates that shareholder objectives and managers' objectives differ and contradict relative to their personal interests giving rise to governance structures meant to reduce the spill over. Lamport et al. (2011) stated that, prior studies argue that good audit committee characteristics impacts positively on the financial performance of firms. It is essential for organizations to grasp good audit committee characteristics as these aids in avoiding fraud and enhances the image of the organization. It additionally becomes vital for companies to improve financial performance, enhance the investment environment as well as to encourage development (Braga & Shastri, 2011).

Despite existence of tight regulatory framework within the insurance industry in Kenya, some insurance companies have either stagnated in growth or collapsed. This was aggregated by scandals such companies have experienced (Muriithi, 2019). Therefore, the issue of audit committee characteristics is an area of interest to researchers due to its impact on the firm's financial performance. Some companies have experienced different results depending on how they embrace corporate governance issues. Firms which have embraced good audit committee practices are in a position to satisfy major stakeholders. On the other hand, companies which fail to embrace good audit committee practices have experienced difficulties. BlueShield Insurance Companies is under statutory management after a prolonged poor financial performance. Equally, Real insurance company was acquired by Britam due to uncertainty in its going concern. Other insurance companies that have gone under include: Standard Assurance, Kenya National Assurance Company, Access Insurance Company and Concord Insurance Company among others.

On an empirical perspective, there are several studies conducted on audit committee and financial performance in developed economies. Majority of the past studies have however focused on the effect of audit committee on fraud detection. Andi (2011) argues that the proactive involvement of the board in fraud risk management activities comes with the benefit of mitigating fraud by increasing the chances for detection. The study of Dumitrascu and Savulescu (2012) revealed that the expertise of the audit committees increase their monitoring capability which in turn increases the quality of financial reporting. An investigation by Wan and Roshayani (2014) reveals that the effectiveness of the committee has negative substantial impact to the occurrence of fraudulent reporting. This implies that the effectiveness of audit committees has lowered the occurrence of fraudulent reporting in establishments.

Locally, Ragama (2013) considered audit committee effectiveness and efficiency in deposit taking SACCOs in Kenya. Githinji and Muage (2013) investigated the place of audit committee in the organizational chart to promote corporate governance. Ruto (2016) focused on effectiveness of audit committee in government ministries in Kenya and found that audit committees with more than 3 members are more effective on ministerial financial management compared to those with fewer members. Okiro (2018) sought to assess the effect of county audit committees on the performance of county governments in Kenya and established a strong relationship between county audit committees on performance of these governments.

From the foregoing, although there are related studies done both locally and internationally on audit committees, there exist conceptual, contextual and methodological gaps. Conceptually, the available local studies have not operationalized audit committee characteristics in terms of the six measures that will be adopted in the current study. Contextually, the available studies have not focused on insurance firms. It is necessary to conduct a study on these firms as several of them have been faced with scandals in the recent past that have been attributed to weak corporate governance mechanisms. Methodologically, most of the previous studies have focused on few firms such as a segment of firms listed at the NSE which does not give enough data points to conduct robust regression analysis. This study leveraged on these gaps by answering the research question; what is the effect of audit committee characteristics on financial performance of the insurance firms in Kenya?

1.3 Research Objective

The objective of this study was to examine the impact of audit committee characteristics on financial performance of the insurance firms in Kenya.

1.4 Value of the Study

The review will be of significance to the management of insurance firms, policy-making entities and to the literature of finance. The management of insurance firms will derive the most out of this since as it illuminates ways in which they can utilize audit committee characteristics as a channel to improve financial performance of the firms. The recommendations of this study will inform the managers in their decision making.

The study will also be of value to policymaking organizations like governments, the insurance regulatory authorities and economic bodies that formulate the various polices on corporate governance and growth of insurance firms. The policy making bodies may use the study recommendations to come with effective audit committee characteristics to enhance financial performance of insurance firms in Kenya.

Finally, the review will add on to the available theoretical discussion on the agency theory, stakeholder theory and stewardship theory. The study will also add on to the empirical literature on audit committee practices and insurance firms' financial performance. Additional, studies may also be carried out based on the recommendation and suggestions for further research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter explains the theories on which audit committee characteristics and financial performance is based. It further discusses the previous empirical studies, knowledge gaps identified and summarizes with a conceptual framework and hypotheses showing the expected relationship among the study variables.

2.2 Theoretical Framework

This is a review of theories explaining the study phenomena. The theoretical reviews covered are the agency theory, stakeholder theory and the stewardship theory.

2.2.1 Agency Theory

Developed by Jensen and Meckling (1976), this theory defines an agency as a contractual agreement between a principal and an agent. The principal delegates his decision-making authority to the agent with expectation that the agent will maximize his wealth. Accordingly, conflict between these two parties and between majority and minority shareholders may arise due to; moral hazards, adverse selection and information asymmetry following separation of ownership and control. This theory hypothesizing that subject to the adequacy of CG controls, managers may manipulate their financials by exclusively investing in short term profitable projects so as to meet short term performance targets at the expense of sustainable long-term performance. Investors on the other hand prefer long-term investments with promising high sustainable ROI and often rely on CG for checks and balances. Subsequent modifications to this theory included; behavioral agency theory, socio-emotional wealth theory, stewardship theory, stakeholder theory and shareholders theory. These modifications were built on the assumption of goal congruence between agents and

principals by positing that agents tend to be loss averse subject to a certain reference point.

Extant studies that used this theory adopted its assumption that both the principal and the agent are motivated by self-interest. They posit that for managers to maximize shareholder's wealth there is need for them to invest only in portfolios that generate positive NPV. Asher et al. (2005) critiques this line of thinking by stating that it is too optimistic to think that firms can readily identify all aspects of the agency problem that maximize their NPV and that the theory places too much emphasis on the agent at the expense of institutions. Ling et al. (2001) critiques the theory's assumptions of non-existence of non-economic goals and expectations that all investors are rational based on economic goals. Rowe (1982) also critics this theory on two levels; the theory does not give satisfactory answers as to why the agent caused his free undertaking and it is also unable to account for the ways in which events are thought to influence agent's free actions.

For firms to minimize their agency cost, Jensen and Meckling (1976) advocate for the establishment of audit committee controls aimed at maximizing both shareholder wealth and firm growth. These controls might be in the form of board structure and executive compensation schemes. It is thus important to recognize the role that separation of ownership and control plays on firm growth. Shareholders tend to rely on management disclosures and are therefore gullible to compromised firm growth that can materialize in the presence of inadequate audit committee controls. This theory therefore hypothesizes that the lower the audit committee controls level the higher the agency costs and the lower the financial performance.

2.2.2 Stakeholder Theory

Stakeholders' theory, which was originally developed by Freeman (1984) was to be used as a managerial instrument. It has however since evolved to become a theory of the firm that has high explanatory potential. The stakeholder theory is like a conceptual framework of business ethics and organizational management which addresses moral and ethical values in the management of a business or other organizations. Stakeholder theory majorly focuses on equilibrium of the interests of the stakeholders as the core determinant of corporate policy. The theory has a large contribution to risk management coming up as an addition to implicit contracts theory as well as other forms of contracts, including financing and sales (Cornell & Shapiro, 1987).

Supporters of the theory posit that it is important as it emphasizes on the accountability of the organization externally and internally as business entity activities impacts the external environment. Key (1999) argues that the theory may be the optimal model to provide a description of firm behavior replacing the dominant view which is the firm's economic model. However, the present conceptualizations of the theory hardly meet the scientific theory requirements. Therefore investigations into the roots of stakeholder "theory", criticizes its forms, suggesting that measures can be taken for the theory to satisfy its conceptual requirements. To be specific, the studies state that there may be contractual interests underlying stakeholder relations as they do in a normal agency relation between management and shareholders as stated by the conventional economic theory.

In various industries, consumer trust and particularly high-tech services, and the specifically involved companies being able to maintain offering of such services in the

future, can substantially contribute to company value. The value of these implicit claims is however highly sensitive to probable costs of financial distress and/or bankruptcy. This is because management practices on corporate risks can front the lowering of these expected costs, raising the company value (Klimczak, 2005). The stakeholder theory therefore provides a diversified insight into feasible rationale for corporate governance. The theory has however not been tested directly yet. A hypothesis investigating financial distress only provides indirect evidence (Judge, 2006). Stakeholder theory was relevant to the study as it highlights the need for audit committee to safeguard stakeholders' interests.

2.2.3 Stewardship Theory

This theory emanated from the scholarly works of Donaldson and Davis (1989) and suggests that these agents are working for the benefit of the shareholders as well as that of the organization, which is contrary to the theorem on agency that portrays agents to be self-interested as well as being individualistic (Bouaziz & Triki, 2012). It proposes that; the steward shall always perform their obligations with the interest of the owners in mind and thus eliminates the role of the board (Moses, 2019).

It presumes assumes that; the agent is capable of combining all the interests of the different stakeholders and hence performing his responsibilities diligently to safeguard their assets and his decisions are to bring increased revenue for the owner in the long duration (Siswanto & Fuad, 2017). It goes ahead to acknowledge diverse non-financial benefits which encourage agents while influencing their decision making process. They are inclusive of; the requirement of being recognized and realization of a goal, approval for a good output and its extremely good operations, recognizing the authority as well as the work code of conduct (Amer, 2016). In this study, the

stewardship theory suggests that; agents possess the same interests as the owners of the company, and as such, they have their careers being joined to the realization of the company's aims, while their status are incorporated in its output as well as the benefits to the shareholders.

2.3 Determinants of Financial Performance

There are several determinants of FP of a firm; these factors are found either within or outside the firm. Internal factors are firm-specific and can be manipulated internally. They are audit committee characteristics, quality of management, solvency margin, underwriting risk, age and firm size. Factors outside a firm that influence performance includes; inflation, GDP, political stability and interest (Athanasoglou et al., 2005).

2.3.1 Audit Committee Characteristics

Theoretical literature has cited three components of monitoring mechanisms that drive the firm towards financial performance. These are: internal auditing, external auditing and the directorship (Anderson et al., 2014). However, another component namely the audit committee has been added by the Institute of Internal Auditors (IIA, 2008). The Cadbury Committee in 1992 recommended an effective audit committee that is essential for securing responsible corporate governance. In its Report, the committee states that an effective audit committee is crucial for effective management of the firm. The report further recommends that in the annual company reports, the directors' report should recommend on how effective the committee is (MicroSave, 2007). A governance structure that has an effective audit committee is expected to help in detection and mitigation of fraud.

A well governed entity performs better which is an indicator of efficient audit committees while inefficient audit committees results to failure of organizations

(Kyerbaah & Biekpe, 2006). Precisely, poor audit committees' triggers many problems such as mismanagement, unreliable services, wastage pilferage, inefficiency and red tapes. A combination of these problems leads to the collapse of an organization if taken for granted. Therefore, it is highly vital that a firm puts in place an effective and enduring audit committee structure with strict adherence; in that case fraud incidences in whatever case are likely to be drastically reduced (Kyerbaah & Biekpe, 2006). Six characteristics that have been hypothesized to have a significant influence on financial performance are namely director independence, tenure of the directors, size of the audit committee, financial expertise for the audit committee, frequency of committee meetings and multiple directorships in the board.

Director independence is measured as the ratio of non-executive directors in the committee to the total number of directors. It shows how independent the committee is in terms of decision making. A more independent audit committee is expected to provide better oversight leading to enhanced financial performance. The tenure of directors is usually measured as combined number of years the audit committee members have been in office. A longer tenure might imply a higher propensity for the directors to be compromised leading to poor oversight and in essence a negative effect on financial performance. Size of the audit committee is measured as the number of directors in the audit committee. Theoretically, a larger audit committee is expected to have diverse views on matters leading to better oversight and in effect enhanced financial performance (Ogoro & Simiyu, 2014).

The financial expertise of the audit committee is measured as the number of directors with financial background in the audit committee. A higher number of directors with financial expertise imply enhanced ability to detect issues thus leading to better

oversight. Frequency of committee meetings is measured as the number of committee meetings in a year. More meetings theoretically imply more time to discuss the financial issues facing the firm and a higher likelihood to perform better oversight. Multiple directorships in the board are measured as the number of audit committee members who are also members of other committees in the board. Multiple directorships is theoretically expected to have a negative influence on financial performance as the directors might not commit adequate time to audit issues (Okiro, Aduda & Omoro, 2015).

2.3.2 Underwriting Risk

According to Ansah-Adu, Andoh, and Abor (2012) underwriting risk is ability that the premium collected will cater for the claims intimated in a given period. It is theoretically expected that for a general insurance company to be profitable it should collect more premium which are more than the amounts of money spend towards settling claims. In this respect, the claims ratio should be favourable. It is for this reason that insurance companies are expected to critically stipulate their underwriting policies in order not to hamper their performance. For instance, general insurance should diversify and avoid those risks that are bound to happen in certain terms as evidenced by their claims experience (Giesbert & Steiner, 2011).

Risks that insurance companies take from individuals and enterprises can consequently be taken by reinsurers from insurance firms through reinsurance (Chhibber & Majumdar, 2011). Reinsurance enables insurance firms to mitigate the impact of unanticipated losses and ensuring earnings stability and enhance underwriting capacities (Charumathi, 2012). Premium growth and market are other determinants of insurance performance. However, premium growth is not always a

positive indicator of the insurer's success; it can be achieved through underwriting of new policies unlike depending on insurance rate increases.

2.3.3 Solvency Margin

The financial state of the firm is affected by a number of factors not limited to; size and total assets. While the regulators (IRA) might not liquidate large insurers easily, it is expected that small insurers might be exposed to insolvency. Cash flow and asset liquidation are two important components of liquidity (Pastor & Veronesi, 2013). Bhunia (2012) indicated that current liquidity ratio was an essential indicator of solvency. The level of stability of liquidity ratio was considered a key measure of corporate solvency. Intuitively, being profitable implied that insurers accumulated more revenues as compared to money that was disbursed as expenses.

Nduati (2014) showed that there was a positive linkage between operating margin and financial solidarity; operating margin was found to be negatively related to insolvency ratio. A few cases have been cited showing that financial performance of insurers is essential and as such it is also essential to highlight the level of solvency and factors that affect the solvency of the insurers. Some firms fail because of poor solvency margin that hinders them from meeting their financial obligation. Firms that aspire to be profitable; one of the ways of achieving this fundamental objective is ensuring that they maintain their levels of solvency margins for purposes of investing and meeting their financial obligation (Chakraborty, 2008).

2.3.4 Firm Liquidity

Liquidity is used to denote the capability of a firm in this case an insurance firm to settle its debt obligations that are incurred within twelve months by the use of cash and short-lived assets that are rapidly convertible into cash. It hence occurs as a result

of the ability to settle financial demands owed to creditors without liquefying their other assets (Adam & Buckle, 2013).

Liargovas and Skandalis (2008) argued that sufficient proportions of liquid assets assist firms to finance their activities and to invest in cases where they cannot obtain external funds. Firms with that high liquidity can meet unforeseen liabilities and obligations that need to be settled. Almajali et al. (2012) argued that a bank's liquidity can significantly affect the amounts it can afford to lend out to clients; thus firms should hold more liquid assets and lower short term obligations. Jovanovic (1982) noted that an increase in liquidity may harm the firm.

2.4 Empirical Review

Research has been conducted locally and internationally to support the association between corporate governance and firm growth, but these studies have yielded contradicting results.

2.4.1 Global Studies

Kantudu and Samaila (2015) studied the effects of the characteristics of the board, independent audit committee, and quality of financial reporting of oil marketing firms: Evidence from Nigeria. The study specifically examined the effect of monitoring on the quality of financial reporting of oil marketing firms in Nigeria. The researcher obtained data from audited annual reports and accounts of the sampled oil marketing companies over a twelve-year period, and then multiple regression was used to analyze the data using Stata version 12.0. The findings showed that having independent audit directors and enhancing the independence of the audit committee members enhanced the quality of financial reporting. The study, however, failed to

examine how the audit committee characteristics influence the financial performance within the firms.

Yee, Sujan, James, and Leung (2017) conducted a study examining Perceptions of Singaporean internal audit customers regarding the role and effectiveness of the internal audit. The researcher adopted a descriptive research design with primary data being collected from structured questionnaires from a pool of public auditors. The study indicated that an internal audit was more effective when on the level of audit independence was higher, and the reporting policies were established. The study failed to consider other characteristics of the committee that enhance have an effect on the performance of the auditing committee.

Eyenubo, Mohammed, and Ali (2017) conducted a study on the audit committee's effectiveness of financial reporting quality in listed companies in the Nigeria Stock Exchange. The study adopted a descriptive research design and sampled firms listed at the Nigerian stock exchange. The results of the study showed that audit independence, the size, and the expertise of the members were key determinants of the reporting quality by auditors. The study, however, did not examine financial performance.

Chou and Buchdadi (2017) studied the impact of characteristics of the audit committee on the performance of Indonesian banks. The research relied on several variables including the independence of the board, the annual board meeting, average attendance of the board meeting, the annual board-executive meeting and attendance, audit committee, audit committee meeting and the attendance percentage, risk committee, risk committee meeting, and attendance percentage. The research utilized a two-stage least squares panel data regression and Tobin’s Q as the proxy of firm performance. The researcher concluded that the attendance levels played a major role

in determining the effectiveness of the oversight role of the committee. The research further pointed out that the frequency of meetings and the relevance of the agenda of the audit committee enhanced financial reporting. The study, however, failed to indicate how the audit committee meetings influence the financial performance within insurance firms.

Bananuka, Nkundabanyanga, Nalukenge, and Kaawaase (2018) examined internal audit function, audit committee effectiveness, and accountability in the Ugandan statutory corporations. The study adopted a cross-sectional research design with correlational analysis utilized in the study. Research data was collected across 52 statutory corporations in Uganda. The findings of the study indicated that the internal audit function significantly contributed to the accountability of statutory corporations. The research findings further indicated that the audit committee meetings enhanced the effectiveness of the audit committee duties. However, the study findings showed that audit committee effectiveness made significant contributions towards improving accountability, even without the presence of the internal audit function. The research, however, was conducted in Uganda state corporations and did not examine how the financial performance can be fostered through audit committee characteristics, which are the focus of this study.

Zraiq and Fadzil (2018) examine the association between audit committee and firm performance of the Jordanian firms. This study used OLS regression to test the relationship between independent variable and dependent variable as discussed in the section explaining the study method. The data comprised of 228 industrial and service firms. The findings indicated a positive direction but insignificant relationship between audit committee size and ROA but the relationship between audit committee

size and earnings per share was positive direction and significant. Further, the result shows audit committee meetings had significant and positive direction with ROA. Correspondingly, audit committee meetings with earnings per share represent positive direction but insignificant.

Ashari and Krismiaji (2019) investigated the effect of audit committee characteristics, which includes independence, size, competence, and frequency of meetings on the financial performance of manufacturing firms listed on the Indonesian Stock Exchange for the year of 2016 and 2017. Financial performance is measured and proxy with the return on assets. This study uses a sample of 466 observations of publicly listed companies on the Indonesian Stock Exchange for the fiscal year that ends on December 31, 2016 through 2017 which are retrieved for 660 listed companies' population. The study finds that all of the characteristics of audit committee positively affect the company's performance. The research also uses three control variables, which are the quality of auditors, financial leverage and company size. Quality of auditors and financial leverage positively affect the company's financial performance, while the financial performance of the company is negatively affected by size.

Rahman, Meah and Chaudhory (2019) sought to explore the impact of audit characteristics on firm performance in Korea. In this study, external audit quality, frequencies of audit committee meetings, and audit committee size are used as the proxies of audit characteristics and firm performance is measured through ROA, profit margin and EPS. A total of 503 firm years are considered as sample size from the listed manufacturing firms of Dhaka Stock Exchange during the period of 2013 to 2017 to find out the impact of audit characteristics on firm performance. In this study,

multivariate regression analysis is conducted using the pooled OLS method. Moreover, time dummy and lag model of multivariate analysis are also analyzed as robust check. The multivariate regression results find that external audit quality and audit committee size are significantly positively associated with firm performance. This study also finds that there is a significant negative relationship between audit committee meeting and firm performance.

2.4.2 Local Studies

Ruto (2016) focused on effectiveness of audit committee in government ministries in Kenya. The study utilized a descriptive research design whereby descriptive survey designs were used. The population consisted of the members of the audit committee who made a target population of 60 respondents. Primary data was used in this study by use of questionnaires. Correlation and regression analysis was used to draw a causal relationship between the variables. The study found that audit committees with more than 3 members have been found to be more effective on ministerial financial management compared to those with fewer members. The study also established that competency is a determinant of the efficiency of the auditor in adopting a systematic approach in evaluating and improving risk management efficiency, control, and governance processes in your ministry.

Kipkoech and Rono (2016) focused on establishing the effect of audit committee size and experience on firm performance among listed firms in Nairobi securities exchange, Kenya. The study is informed by agency theory and institutional theory. The study was conducted in firms listed on the Nairobi Securities Exchange for the period ranging from 2006 to 2011. Multiple Regressions was used to test hypothesis. Research findings showed that audit committee experience and audit committee size a

has a significant effect on firm performance. The presence of audit members with experience will also reduce financial misreporting and enhance quality monitoring. As such, having experienced audit committee members should be a key priority for firms. Also there is need for firms to have an audit committee that is not too small such that there is lack of expert advice and too large such that it has free riders that are prone to follow other members opinion.

Wanyanga (2016) sought to evaluate audit committee characteristics and performance of manufacturing and allied firms listed on the NSE. Specific objectives were to establish the relationship between audit committee size and performance, ascertain the relationship between audit committee independence and performance, determine the relationship between audit committee gender diversity and performance, and establish the relationship between audit committee experience and professional and performance of manufacturing and allied firms listed at the NSE. The study utilized a correlational research design targeting all the 9 listed manufacturing and allied firms on NSE for the period 2006 to 2013 collected annually yielding 63 data points. Primary data was collected through interview with the CEOs. Secondary data was collected through desk analysis using a data collection sheet. Data analysis was done using statistical techniques including, Pearson's product moment correlation and multiple regression analyses. Results indicated that audit committee gender diversity, audit committee independence, audit committee experience and audit committee size all have a positive and significant effect on firm performance.

Jerubet, Chepng'eno and Tenai (2017) sought to establish the effects of audit committee characteristics on quality of financial reporting among firms listed in Nairobi Securities Exchange, Kenya. The study was guided by the agency theory.

Explanatory research design was used. A survey of all firms was done and only 46 firms were extracted because they were operating in NSE at the year 2014. This study utilized secondary data which was collected by use of a document analysis guide. Data collected was analyzed by using both descriptive and inferential statistical methods. The findings indicated that audit committee size has a positive and significant effect on the quality of financial reporting. However, findings showed that audit committee independence had a negative and significant effect on the quality of financial reporting.

Waweru (2018) studied the characteristics of the audit committee in terms of the ethnic diversity of the board and the performance of Kenyan and Tanzanian firms. The study specifically sought to examine the effect of compliance with audit committee guidelines on earnings management of firms operating in areas with poor corruption management. Panel data models were utilized in the analysis. The studies showed that increased frequency of audit committee meetings coupled with the independence of audit committee members and board ethnic diversity enhanced the quality of financial reporting within state corporations. This further fostered the overall earnings management within Eastern Africa.

Mwangi (2018) examined the effect of audit committee characteristics on the quality of financial reporting among Non-Commercial State Corporations in Kenya. The study sought to specifically establish the effect of audit committee independence, diversity, financial competence and meetings on the quality of financial reporting. The research relied on a descriptive research design and adopted a census sampling of 72 state non-commercial corporations. The study further utilized descriptive and inferential analysis techniques. The findings of the research showed that audit

committee meetings had a statistically significant relationship with the quality of financial reporting. The study, however, focused on financial reporting, whereas the current study scope will be contextually limited to financial performance of insurance firms.

Okiro (2018) sought to determine how county audit committees affect the performance of Kenyan county governments. The study uses a purposive judgment sampling model. The target population was all 47 county governments in Kenya and the county audit committees was the preferred unit of analysis. Hypotheses were tested using regression analysis and Pearson's Product Moment Correlation analysis. He computed descriptive statistics for the study objectives on the key characteristics of the study variables. Findings showed a strong relation between county audit committees and county government performance.

Nyaga, Kiragu, and Riro (2018) examined the influence of internal audit independence on internal audit effectiveness in the Kirinyaga county government, Kenya. The study utilized a descriptive research design with the study utilizing a census sampling of 46-employees working within the Directorate of Internal Audit of Kirinyaga County. Descriptive and regression analysis was done with the help of SPSS. The results of the regression analysis revealed that internal audit independence had a positive and significant effect on internal audit effectiveness. The researchers indicated that increased autonomy of the internal audit department, free access to audit evidence, determining the scope of the audit as well as not performing audit functions will foster the perception of their reports. The study focused on a directorate within a devolved unit of governance, whereas the current study focuses on insurance firms in Kenya.

Kariuki and Oluoch (2020) focused on the effect of audit committee characteristics on the financial reporting quality of firms listed at the NSE. The study adopted a census approach and thus all the 62 listed firms were used as unit of analysis. Secondary data was obtained from the existing companies' annual reports for the period 2014-2018. The study adopted a descriptive research design that generally describes the characteristics of a particular situation, event or case. The study concluded that there was a positive effect of audit committee size on financial reporting quality at the Nairobi Securities Exchange. There was a positive effect of audit gender ratio on financial reporting quality at the Nairobi Securities Exchange. There was a no effect of audit committee frequency meetings on financial reporting quality at the Nairobi Securities Exchange. Lastly, there was a positive effect of audit committee independence on financial reporting quality at the Nairobi Securities Exchange.

2.5 Summary of the Literature Review and Research Gaps

Several frameworks have described the anticipated theoretical relation existing between audit committee and financial performance of insurance firms. The theories covered are; agency, stakeholder and stewardship theories. Primary determinants of financial performance have also been discussed in this section. Both local and international studies have been done on audit committee characteristics and financial performance. The findings related to them have been discussed in this section. The minimal consensus among previous researchers was reason enough to conduct further study. The current study leveraged on this gap.

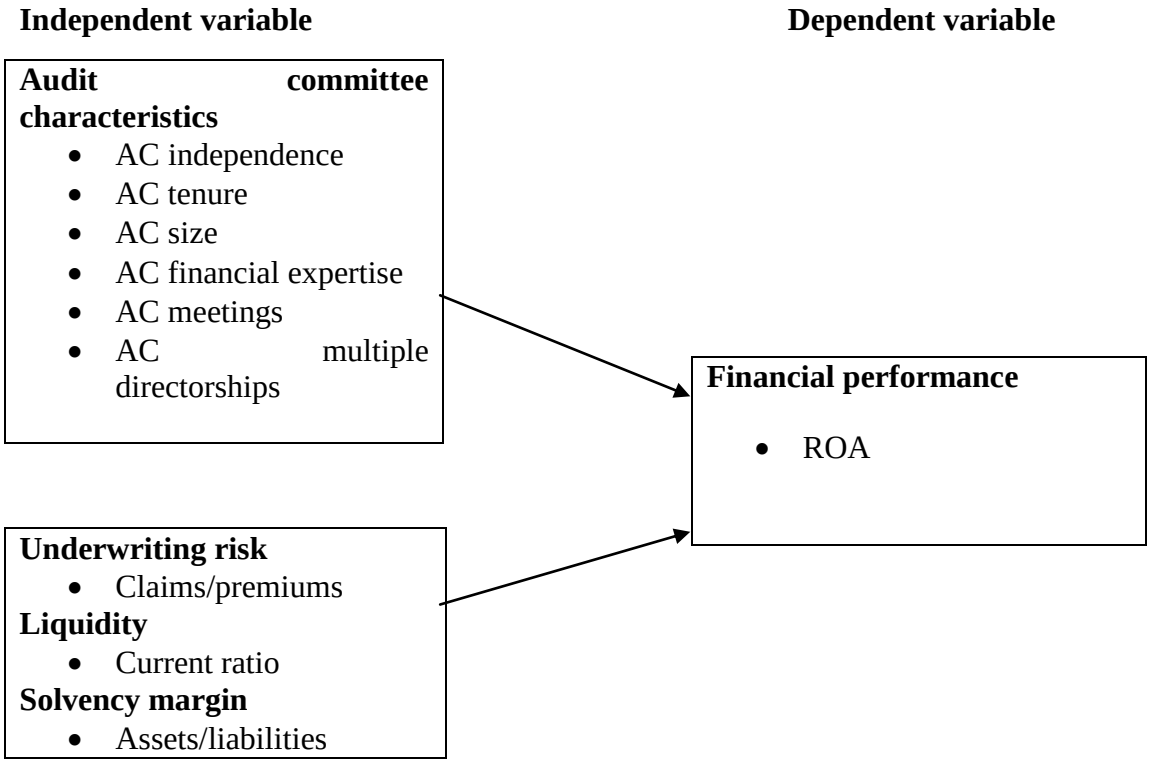
Empirical studies discussed in the previous section also revealed existence of conceptual, methodological and contextual gaps. Conceptual gaps were manifested through differences in operationalization of audit committee characteristics.

Methodological gaps from the review of empirical studies were manifested through lack of consensus in adopted research methods. Contextual gaps from the review of empirical studies were manifested through differences in research settings. Most of the empirical works on the subject area were done in developed economies and those done in the local context did not focus on insurance firms. These gaps have shown that research on audit committee characteristics and financial performance relationship still has several grey areas with no empirical consensus. The study sought to contribute in this area.

2.6 Conceptual Framework

The model below exhibits the expected association between the study variables.

Figure 2.1: The Conceptual Model



Source: Researcher (2021)

The independent variable for the study was audit committee characteristics measured as director independence, tenure of the directors, size of the audit committee, financial expertise for the audit committee, frequency of committee meetings and multiple directorships in the board. Audit committee independence, size, financial expertise and frequency of meetings are expected to have a positive relationship with financial performance while tenure of the directors and multiple directorships in the board are expected to have a negative relationship with financial performance. The control variables were underwriting risk, solvency margin and firm liquidity. Solvency margin and liquidity are expected to have a positive relationship with financial performance while underwriting risk is expected to have a negative relationship with financial performance.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In determining the effect of audit committee characteristics on financial performance of insurance firms in Kenya, a research methodology was required in outlining how the research was done. This chapter outlined the research design, the data collection method, diagnostic tests and data analysis techniques.

3.2 Research Design

A descriptive design was adopted to determine how audit committee characteristics and financial performance of insurance firms relate. This design was appropriate since it aims at finding out the what, where and how of a phenomenon (Khan, 2008). It was also sufficient in defining the interrelationships of the phenomena. This design also validly and accurately represented the variables thereby giving sufficient responses to the study queries (Cooper & Schindler, 2008). It was therefore suited in explaining the interrelationships among the selected study variables.

3.3 Population

A population is the totality of observations of interest from a collection such as persons or events as specified by a research investigator (Burns & Burns, 2008). This study's population comprised of the 54 insurance firms registered in Kenya as at 31st December 2020. Since the population was small, a survey of the 54 firms was undertaken for the study (see appendix I).

3.4 Data Collection

The study used secondary data obtained from Insurance Regulatory Authority (IRA) covering a period of 5 years from 2016 to 2020 on an annual basis. The specific data

collected for financial performance was net income and total assets, for AC independence, the data collected was number of independent directors and total directors, for AC tenure, the data collected was combined number of years the audit committee members have been in office, for AC size the data collected was the number of directors in the committee, for AC financial expertise the data collected was the number of directors with a finance background, for AC meetings, the data collected pertained the number of meetings held in an year, while for AC multiple directorships was the number of directors that were also members of other committees in the board. For the control variables, underwriting risk data collected was total claims and total premiums, for solvency margin the data collected was total assets and total liabilities while for liquidity, the ratio for current liabilities to current assets.

3.5 Data Analysis

Data was analyzed using SPSS software version 24. Tables and graphs presented the findings quantitatively. Descriptive statistics were employed in the calculation of measures of central tendency and dispersion and specifically the mean and standard deviation. This was then used to rank the performance of each insurance firm in terms of their audit committee characteristics. Inferential statistics relied on correlation and regression. Correlation determined the magnitude of the relation between the study variables and a regression determined cause and effect among variables. A multivariate regression linearly determined the relation between dependent and independent variables.

3.5.1 Diagnostic Tests

To ascertain the model viability, a number of diagnostic tests were done, like normality, stationarity, multicolinearity, homogeneity and autocorrelation. The

assumption of normality is that the dependent variable's residual would be normally distributed and closer to the mean. This was accomplished by use of the Jarque-Bera Test. In instances where one of the variables had no normal distribution, it was adjusted using the logarithmic adjustment methodology. Stationarity test was utilized in determining if the statistical characteristics such as variance, mean, as well as autocorrelation change with the passage of time. This property was ascertained via the augmented Dickey Fuller test. In the event the data does not meet this property, the data was transformed using natural logarithm. Robust regression was also used as it provides better regression coefficients than ordinary least square (Khan, 2008).

Autocorrelation is a measure of how similar one time series is when compared to its lagged value across successive timings. The measure of this test was done using the Wooldridge test and in the event that the presumption is breached the robust standard errors were used in the model. Multicollinearity exists when a perfect or near perfect linear relation is made between a number of independent variables. Variance Inflation Factors (VIF) as well as tolerance levels were utilized. Any multicolinear variable was eliminated and a new measurement used in place of the variable having co-linearity. Heteroskedasticity confirms if the errors variance in a regression lies among the independent variables. This was tested using the Levene test and if data does not meet the homogeneity of variances assumption, robust regression analysis was employed as it provides better regression coefficients when outliers exist in the data (Burns & Burns, 2008).

3.5.2 Analytical Model

The regression model below was used:

$$Y= \alpha+ \beta_1X_1+\beta_2X_2+\beta_3X_3+ \beta_4X_4 + \beta_5X_5+\beta_6X_6 + \beta_7X_7 + \beta_8X_8+\beta_9X_9 +\varepsilon.$$

Where: Y = Financial performance as measured by the ratio of net income to total assets on an annual basis

α =y intercept of equation.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9$ =are the regression coefficients

X_1 = Audit committee independence as measured by the proportion of non-executive directors in the audit committee to total number of audit committee members

X_2 = Audit committee tenure as measured by average number of years the audit committee members have been in office

X_3 = Audit committee size as measured by the total number of audit committee members

X_4 = Audit committee financial expertise as measured by the number of directors with financial background in the audit committee to total members

X_5 = Audit committee meetings as measured by number of audit committee meetings held in an year

X_6 = Audit committee multiple directorship as measured by the number of audit committee members who are also members of other committees in the board

X_7 = Underwriting risk given by the ratio of total claims to total premiums on an annual basis

X_8 = Liquidity given by the ratio of current assets to current liabilities on an annual basis

X_9 = Solvency margin given by the ratio of total assets to total liabilities on an annual basis

ε =error term

3.5.3 Tests of Significance

Parametric tests determined the general model and variable's significance. The F-test determined the model's relevance and this was achieved using ANOVA while a t-test determined the relevance of every variable.

CHAPTER FOUR: DATA ANALYSIS RESULTS AND FINDINGS

4.1 Introduction

This chapter deals with the analysis of data. The objective of the research was to establish the relationship between audit committee characteristics and performance among insurance firms in Kenya. Patterns were studied by descriptive and inferential analysis, that were then analyzed and conclusions drawn on them, in accordance with the specific objectives.

4.2 Descriptive Statistics

The study sought to describe the data in terms of their mean and standard deviations. The descriptive analysis was necessary as it helps in understanding the characteristics of the collected data before conducting inferential analysis. The results are as shown in Table 4.1

Table 4.1: Descriptive Results

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	245	-.570	.390	.03941	.112951
AC independence	245	.571	.944	.87779	.063781
AC Tenure	245	1.000	4.000	2.84898	.857494
AC size	245	5.000	18.000	10.04898	2.853968
AC financial expertise	245	.029	.950	.58485	.153287
AC meetings	245	4.000	39.000	6.98367	5.637962
AC multiple directorship	245	.000	3.000	1.51020	.837699
Underwriting risk	245	.025	1.419	.46773	.238230
Liquidity	245	.343	11.648	2.25865	1.779511
Solvency margin	245	1.002	10.549	3.75653	2.371323
Valid N (listwise)	245				

Source: Research Findings (2021)

Table 4.1 shows the descriptive analysis, with 245 observations for each variable based on the product of the number of cross-sectional units and the number of periods studied (49*5 =245). The dependent variable was performance while the independent variable was audit committee characteristics (AC independence, AC tenure, AC size, AC financial expertise, AC meetings and AC multiple directorship). Finally, the control variables were underwriting risk, liquidity and solvency margin.

4.3 Diagnostic Tests

To ascertain the model viability, a number of diagnostic tests were done, like normality, stationarity, Multicollinearity test, homogeneity of variance and autocorrelation.

4.3.1 Normality Test

To test whether the collected data assumed a normal distribution, normality test was conducted using the Jarque-Bera Test. The threshold was that, if the p value is greater than 0.05, then the data assumes a normal distribution.

Table 4.2: Test for Normality

	Jarque-Bera Coefficient	P-value
Performance	2.587	0.100
AC independence	3.421	0.265
AC Tenure	3.735	0.324
AC size	5.304	0.702
AC financial expertise	3.428	0.304
AC meetings	3.192	0.299
AC multiple directorship	1.763	0.085
Underwriting risk	2.153	0.227
Liquidity	3.239	0.300
Solvency margin	3.145	0.201

Source: Research Findings (2021)

The normality test results revealed a p- value above 0.05 thus the null hypothesis rejection and acceptance of the alternate hypothesis meaning the normality test revealing normal distribution in the data.

4.3.2 Multicollinearity Test

Multicollinearity exists when a perfect or near perfect linear relation exist between a number of independent variables. Variance Inflation Factors (VIF) as well as tolerance levels were utilized.

Table 4.3: Multicollinearity

	Collinearity Statistics	
Variable	**Tolerance**	**VIF**
AC independence	0.776	1.289
AC Tenure	0.584	1.712
AC size	0.728	1.374
AC financial expertise	0.644	1.553
AC meetings	0.675	1.481
AC multiple directorship	0.697	1.434
Underwriting risk	0.703	1.422
Liquidity	0.661	1.513
Solvency margin	0.634	1.577

Source: Research Findings (2021)

The outcomes in Table 4.3 specify that all the variables had a VIF values <10 and tolerance values >0.2 suggesting that Multicollinearity did not exist.

4.3.3 Heteroskedasticity test

Cross-sectional units tend to exhibit homoskedastic error processes; however, unit-specific variances are more common and are referred to as group-wise heteroscedasticity. The command with the heftiest weight is used in computing the Breuch Pagan group wise Heteroscedasticity when residuals are utilized. The null

hypothesis states that $\sigma^2_i = \sigma^2$ for i =1...Ng, where Ng is the number of cross-sectional units. Table 4.4 shows Heteroskedasticity Test Results.

Table 4.4: Heteroskedasticity Results

Modified Wald test for group wise heteroskedasticity in regression model
H0: sigma(i)^2 = sigma^2 for all i
chi2 (245) = 286.44
Prob>chi2 = 0.1156

Source: Research Findings (2021)

The null hypothesis of Homoskedastic error terms is not rejected, according to the results in Table 4.4, which are supported by a 0.1156 p-value

4.3.4 Autocorrelation Test

Autocorrelation is a measure of how similar one time series was when compared to its lagged value across successive timings. The measure of this test was done using the Wooldridge test.

Table 4.5: Test of Autocorrelation

Wooldridge test for autocorrelation in panel data H0: no first-order autocorrelation
F(1, 245) = 0.361
Prob> F = 0.4418

Source: Research Findings (2021)

From the results of Table 4.5, the null hypothesis of no serial correlation is not rejected given that the p-value is significant (p-value = 0.4418).

4.3.5 Stationarity Test

Stationarity test was utilized in determining if the statistical characteristics such as variance, mean, as well as autocorrelation change with the passage of time. Table 4.6 shows Levin-Lin Chu unit root test results.

Table 4.6: Levin-Lin Chu unit-root test

Levin-Lin Chu unit-root test			
Variable	**Hypothesis**	**p value**	**Verdict**
Performance	Ho: Panels contain unit roots	0.0000	Reject Ho
AC independence	Ho: Panels contain unit roots	0.0000	Reject Ho
AC Tenure	Ho: Panels contain unit roots	0.0000	Reject Ho
AC size	Ho: Panels contain unit roots	0.0000	Reject Ho
AC financial expertise	Ho: Panels contain unit roots	0.0000	Reject Ho
AC meetings	Ho: Panels contain unit roots	0.0000	Reject Ho
AC multiple directorship	Ho: Panels contain unit roots	0.0000	Reject Ho
Underwriting risk	Ho: Panels contain unit roots	0.0000	Reject Ho
Liquidity	Ho: Panels contain unit roots	0.0000	Reject Ho
Solvency margin	Ho: Panels contain unit roots	0.0000	Reject Ho

Source: Research Findings (2021)

Based on the findings in Table 4.6, the null hypotheses that: Panels contain unit roots were rejected for all the variables, because the p values were less than 0.05. This implied that the panel data for all the variables were stationary.

4.4 Correlation Results

Correlation analysis was carried out to establish the strength and direction of association between each predictor variable and the response variable. The results in Table 4.7 reveal that AC independence; financial expertise and AC meetings all have a positive and significant association with ROA at 5 % significance level as p values are less than 0.05. In addition, the results show that AC tenure, AC size and AC multiple directorship are positively but not significantly correlated with ROA as shown by p values greater than 0.05. In regards to the control variables, underwriting risk exhibited a negative and significant association with performance while solvency margin had a positive association with performance. Liquidity did not exhibit a significant association with performance as shown by a p value greater than 0.05.

Table 4.7: Correlation Results

		ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
ROA	Pearson Correlation	1									
	Sig. (2-tailed)										
AC independence	Pearson Correlation	.164*	1								
	Sig. (2-tailed)	.010									
AC Tenure	Pearson Correlation	.001	.020	1							
	Sig. (2-tailed)	.996	.761								
AC size	Pearson Correlation	.002	.194**	.011	1						
	Sig. (2-tailed)	.977	.002	.859							
AC financial expertise	Pearson Correlation	.182**	.072	.101	.212**	1					
	Sig. (2-tailed)	.004	.264	.115	.001						
AC meetings	Pearson Correlation	.164*	.087	.023	.038	.270**	1				
	Sig. (2-tailed)	.010	.173	.718	.555	.000					
AC multiple directorship	Pearson Correlation	.058	-.016	.039	.070	.239**	-.147*	1			
	Sig. (2-tailed)	.362	.800	.541	.275	.000	.021				
Underwriting risk	Pearson Correlation	-.457**	.101	.006	-.047	.162*	-.017	.015	1		
	Sig. (2-tailed)	.000	.114	.923	.469	.011	.796	.815			
Liquidity	Pearson Correlation	.032	.112	.113	.183**	-.050	-.060	.028	.009	1	
	Sig. (2-tailed)	.624	.079	.077	.004	.440	.347	.665	.884		
Solvency margin	Pearson Correlation	.279**	-.061	.041	-.245**	.269**	-.141*	-.127*	.165**	-.075	1
	Sig. (2-tailed)	.000	.341	.528	.000	.000	.028	.047	.010	.241	

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).
c. Listwise N=245

Source: Research Findings (2021

4.5 Regression Results

Regression analysis was carried out to establish the extent to which ROA is explained by the selected variables. The regression results were presented in Table 4.8 to 4.10.

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.488[a]	.238	.209	.100478

a. Predictors: (Constant), Solvency margin, AC Tenure, AC independence, AC multiple directorship, Liquidity, Underwriting risk, AC meetings, AC size, AC financial expertise

Source: Research Findings (2021)

From the findings as represented by the adjusted R^2, the independent variables that were studied explained 23.8% of the variations in performance among insurance firms in Kenya. This therefore means the nine variables contributed 23.8% of the variations in performance of insurance firms in Kenya while other factors not studied in this research contribute 76.2%.

Table 4.9: ANOVA Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.740	9	.082	8.149	.000[b]
	Residual	2.373	235	.010		
	Total	3.113	244			

a. Dependent Variable: ROA

b. Predictors: (Constant), Solvency margin, AC Tenure, AC independence, AC multiple directorship, Liquidity, Underwriting risk, AC meetings, AC size, AC financial expertise

Source: Research Findings (2021)

ANOVA statistics in Table 4.9 show that the data had a 0.000 level of significance hence this indicates that the model is ideal for making conclusions on the variables.

Table 4.9: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.258	.098		2.648	.009
	AC independence	.297	.104	.212	2.891	.006
	AC Tenure	.001	.008	.008	.143	.886
	AC size	.001	.002	.033	.527	.599
	AC financial expertise	.137	.048	.150	2.468	.020
	AC meetings	.098	.014	.078	1.033	.174
	AC multiple directorship	.008	.008	.062	1.021	.308
	Underwriting risk	-.422	.028	-.467	-7.965	.000
	Liquidity	.001	.004	.014	.238	.812
	Solvency margin	.156	.016	.198	2.526	.010

a. Dependent Variable: ROA

Source: Research Findings (2021)

The coefficient of regression model was as below;

$$\mathbf{Y = 0.258 + 0.297X_1 + 0.137X_2 - 0.422X_3 + 0.156X_4}$$

Where:

Y = ROA X_1 = AC independence; X_2 = AC financial expertise; X_3=underwriting risk; X_4 = Solvency margin

4.6 Discussion of Research Findings

The objective of this study was to establish the effect of AC characteristics on performance. The study utilized a descriptive design while population was the 54 insurance firms. Data was obtained from 49 firms giving a response rate of 90.7% which was considered adequate. The study relied on secondary data which was obtained from IRA and individual firms annual reports. The specific attributes of AC considered were; AC independence, AC tenure, AC size, AC financial expertise, AC meetings and AC multiple directorship. The control variables were underwriting risk,

solvency margin and liquidity. Data was analyzed using both descriptive and inferential statistics. The results are discussed in this section.

The results of correlation analysis revealed that AC independence; financial expertise and AC meetings all have a positive and significant association with ROA at 5 % significance level as p values are less than 0.05. In addition, the results show that AC tenure, AC size and AC multiple directorship are positively but not significantly correlated with ROA as shown by p values greater than 0.05. In regards to the control variables, underwriting risk exhibited a negative and significant association with performance while solvency margin had a positive association with performance. Liquidity did not exhibit a significant association with performance as shown by a p value greater than 0.05.

The regression results revealed that the nine selected predictor variables explain 23.8% of changes in performance among insurance firms in Kenya. The explanatory power was also significant as the p value was 0.000 which is less than 0.05. This implies that the model was sufficient in describing the cause and effect among the study variables. Individually, AC tenure, size, meetings and multiple directorships do not have a significant influence on performance while the results further revealed that AC financial expertise and AC independence were significant determiners of performance. Underwriting risk was found to have a significant negative effect on performance while solvency margin was found to have a significant positive influence on the level of performance while liquidity was not statistically significant.

These results concur with Kariuki and Oluoch (2020) who focused on the effect of audit committee characteristics on the financial reporting quality of firms listed at the NSE. The study adopted a census approach and thus all the 62 listed firms were used

as unit of analysis. Secondary data was obtained from the existing companies' annual reports for the period 2014-2018. The study adopted a descriptive research design that generally describes the characteristics of a particular situation, event or case. The study concluded that there was a positive effect of audit committee size on financial reporting quality at the Nairobi Securities Exchange. There was a positive effect of audit gender ratio on financial reporting quality at the Nairobi Securities Exchange. There was a no effect of audit committee frequency meetings on financial reporting quality at the Nairobi Securities Exchange. Lastly, there was a positive effect of audit committee independence on financial reporting quality at the Nairobi Securities Exchange.

The results also concur with Okiro (2018) who sought to determine how county audit committees affect the performance of Kenyan county governments. The study uses a purposive judgment sampling model. The target population was all 47 county governments in Kenya and the county audit committees was the preferred unit of analysis. Hypotheses were tested using regression analysis and Pearson's Product Moment Correlation analysis. The study computed descriptive statistics on the key characteristics of the study variables. Findings showed a strong relation between county audit committees and county government performance.

The study differs with Chou and Buchdadi (2017) who studied the impact of characteristics of the audit committee on the performance of Indonesian banks. The research relied on several variables including the independence of the board, the annual board meeting, average attendance of the board meeting, the annual board-executive meeting and attendance, audit committee, audit committee meeting and the attendance percentage, risk committee, risk committee meeting, and attendance

percentage. The research utilized a two-stage least squares panel data regression and Tobin's Q as the proxy of firm performance. The researcher concluded that the attendance levels played a major role in determining the effectiveness of the oversight role of the committee. The research further pointed out that the frequency of meetings and the relevance of the agenda of the audit committee enhanced financial reporting. This difference in finding can be explained by the fact that the studies were conducted in contexts with different social and economic setting.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter reviews the results from the previous chapter, it further derives conclusions as wells as the limitations encountered during the study. In addition, it provides recommendation for policy makers and gives suggestions on areas where further studies can be done.

5.2 Summary

The objective of this research was to assess how AC attributes influence performance of Kenyan insurance firms. The selected variables for this investigation included; AC independence, AC tenure, AC size, AC financial expertise, AC meetings, AC multiple directorship, liquidity, underwriting risk and solvency margin. A descriptive research design was selected to complete the research. Secondary data was gathered from IRA and an analysis made using SPSS. Yearly data for 49 insurance firms for five years from 2016 to 2020 was obtained from their annual reports.

The first objective was to examine the effect of AC independence on performance among Kenyan insurance firms. The correlation results at 5 % significance level show that AC independence had a positive correlation with performance. This implies that improvement in AC independence would lead to increase in performance. Regression results (β=0.297, p=0.006) show that there was a positive and significant effect of AC independence on performance among insurance firms.

The second objective was to establish the effect of AC tenure on performance among insurance firms in Kenya. The correlation results at 5 % significance level show that AC tenure had a positive but not significant correlation with performance. This

implies that improvement in AC tenure would not necessarily lead to increase in performance. Regression results (β=0.001, p=0.886) show that there was a positive but not significant effect of AC tenure on performance among insurance firms Kenya.

The third objective was to establish the effect of AC size on performance among insurance firms in Kenya. The correlation results at 5 % significance level show that AC size had a positive but not significant correlation with performance. This implies that improvement in AC size would not necessarily lead to increase in performance. Regression results (β=0.001, p=0.599) show that there was a positive but not significant effect of AC size on performance among insurance firms Kenya.

The fourth objective was to assess the effect of AC financial expertise on performance among insurance firms in Kenya. The correlation results at 5 % significance level show that AC financial expertise had a positive correlation with performance. This implies that improvement in AC financial expertise would lead to increase in performance. Regression results (β=0.137, p=0.020) show that there was a positive and significant effect of AC financial expertise on performance among insurance firms.

The fifth objective was to establish the effect of AC meetings on performance among insurance firms in Kenya. The correlation results at 5 % significance level show that AC meetings had a positive but not significant correlation with performance. This implies that improvement in AC meetings would not necessarily lead to increase in performance. Regression results (β=0.098, p=0.174) show that there was a positive but not significant effect of AC meetings on performance among insurance firms Kenya.

The sixth objective was to establish the effect of AC multiple directorship on performance among insurance firms in Kenya. The correlation results at 5 % significance level show that AC multiple directorship had a positive but not significant correlation with performance. This implies that improvement in AC multiple directorships would not necessarily lead to increase in performance. Regression results (β=0.001, p=0.599) show that there was a positive but not significant effect of AC multiple directorship on performance among insurance firms Kenya.

The seventh objective was to examine the effect of underwriting risk on performance among Kenyan insurance firms. The correlation results at 5 % significance level show that underwriting risk had a negative correlation with performance. This implies that an increase in underwriting risk would lead to a decrease in performance. Regression results (β=-0.422, p=0.000) show that there was a negative and significant effect of underwriting risk on performance among insurance firms.

The eighth objective was to examine the effect of liquidity on performance among Kenyan insurance firms. The correlation results at 5% significance level show that liquidity had a positive correlation with performance. The correlation was however not statistically significant. Regression results (β=0.001, p=0.812) show that there was a positive and not significant effect of liquidity on performance among Kenyan insurance firms.

The ninth objective was to examine the effect of solvency margin on performance among Kenyan insurance firms. The correlation results at 5 % significance level show that solvency margin had a positive correlation with performance. This implies that improvement in solvency margin would lead to increase in performance. Regression

results (β=0.156, p=0.010) show that there was a positive and significant effect of solvency margin on performance among Kenyan insurance firms.

5.3 Conclusions

The study purpose of the research was to find out the association between audit committee characteristics and performance. The findings indicated that AC tenure, AC size, AC meetings and AC multiple directorship had a positive but not significant effect on performance. This may imply that a unit increase in these characteristics would not significantly influence performance.

The study results showed that AC independence had a positive and significant effect on performance. This may mean that the higher proportion of independent non-executive to executive directors increased AC effectiveness in monitoring managerial opportunism and preventing self-interest thereby consequently, increased performance.

The study results further indicated that AC financial expertise had a positive and significant effect on performance which might mean that audit committees with a high proportion of finance experts are beneficial in performance. This might be explained by the fact that insurance firms with high percentage of finance experts in their audit committee are likely to understand the financial statements better and therefore ask pertinent questions leading to better decision making and effective monitoring.

In addition, the results revealed that underwriting risk has a significant negative effect on performance. This implies that firms with high levels of claims relative to the premiums collected are likely to record low performance. This can be explained by the fact that high claims leads to an increase in premiums which might erode the client base. Further, the study revealed that solvency margin has a significant positive

effect on performance. This might be explained by the fact that insurance firms with more assets are able to take advantage of investment opportunities when they arise.

5.4 Recommendations for Policy and Practice

The study findings reveal that AC financial expertise had a positive and significant effect on performance. The study therefore recommends that insurance firms should strive to have financial experts in their audit committees as this contributes to performance of the firms. Policy makers such as IRA should also come with policies and guidelines of the percentage of financial experts that should be in the audit committee.

From the study findings, AC independence had a significant effect on performance. Therefore, the study recommends that IRA which is the regulator should make it mandatory to all insurance firms that they should have AC independence. Furthermore, an effective AC should have a majority of non-executive directors, who are seen to give greater performance due to their independence from firm management, which allows them to make suitable and non-partisan judgments.

Further, the study found out that underwriting risk has a significant negative influence on performance of insurance firms. This study recommends that insurance firms should come up with effective evaluation mechanisms to ensure that they do not end up paying claims that exceed their premiums. The study also recommends that IRA should come up with a solvency margin requirement where all insurance firms are mandated to exceed a given lower limit.

5.5 Limitations of the Study

The focus was on some of the elements that are thought to affect the performance of Kenyan insurance companies. The study focused on nine explanatory variables in

particular. However, there are other factors that are likely to influence a firm's performance. Some are controlled by the company, such as management efficiency and internal controls, while others are not.

The research used secondary quantitative data. The study did not take into account qualitative data that could explain other factors that influence the relationship between AC characteristics and insurance firm’s performance. Qualitative methods like focus groups, open-ended surveys, and interviews can aid in the development of more definite outcomes.

The study focused on a five-year period (2016 to 2020). It's unclear whether the results will last for a longer period of time. It is also unclear whether similar results will be achieved after 2020. In order to account for key economic events, the study should have been conducted over a longer period of time.

The researchers utilized an OLS regression model to analyze the data. Because of the limitations of employing regression models, such as erroneous and deceptive outcomes that cause the value of the variable to change, it was not possible to generalize the conclusions of the research with accuracy. More so the result could be different if more data was added in the regression.

5.6 Suggestions for Further Research

The study findings revealed an R square of 23.8%. This implies that there are other factors that affect performance among the insurance firms that were not addressed by the research. Other researches ought thus to focus on other factors for example; CEO tenure, incentive compensation, board composition among other corporate governance aspects that affect performance among the insurance firms.

The study was limited to insurance companies in Kenya. Additional research on other Kenyan companies should be conducted. Future research should also look into how AC characteristics affect other factors besides the performance, such as company value, efficiency, and growth, to name a few.

The focus of this research was drawn to the last five years. Future studies may span a longer time period, such as ten or twenty years, and might have a significant impact on this study by either complementing or contradicting its conclusions. A longer study has the advantage of allowing the researcher to capture the effects of business cycles such as booms and recessions.

Finally, this research relied on a regression model, which has its own set of limitations, such as errors and misleading results when a variable is changed. Future study should concentrate on models such as the Vector Error Correction Model (VECM) in order to investigate the numerous relationships between AC characteristics and performance.

REFERENCES

Abbott, L.J. (2000). Auditor selection and Audit committee characteristics. *A Journal of Practice and Theory, 19*(2); 47-66

Adams, M. & Buckle, M. (2013). The determinants of corporate financial Performance in the Bermuda Insurance Market. *Applied Financial Economics*, 13(2), 133-143

Adari, F. (2007). Forensic accounting: A tool for fraud detection and prevention in the public sector (A study of selected ministries in Kogi state). *International Journal of Academic Research in Business and social sciences*, 3(3), 11-19.

Almajali, Y.A., Alamro, S.H., & Al-Soub, Y.Z (2012). Factors affecting financial performance of Jordanian insurance companies listed at Amman stock exchange. *Journal of Management Research*, 4(2), 91-101

Amer,M. 2016).*Measuring the effect of board of directors and audit committee characteristics on financial performance in Eqypt*,Doctoral Dissertation ,Cardiff Metropolitan University.

Amudo, A. &Inanga, E. L. (2009). Evaluation of Internal Control Systems: A Case study from Uganda. *International Research Journal of Finance and Economics*. 27(3), 124-144.

Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2014). Audit committee characteristics, accounting report integrity, and the cost of debt. *Journal of accounting and economics, 37*(3), 315-342

Andi, M (2011). *The role of the board in fraud risk management. A monetary economics:* Theory, policy and institution, Onitsha: Hybrid

Ansah-Adu, K., Andoh, C., & Abor, J. (2012). Evaluating the cost efficiency of insurance companies in Ghana. *Journal of Risk Finance*, 13(1), 61-76

Ashari, S. & Krismiaji, K. 2019. Audit committee characteristics and financial performance: Indonesian evidence. *Equity, 22*(2), 139-152.

Asher, C., Mahoney, J., and Mahoney, J. (2005). Towards a Property Rights Foundation for a Stakeholder Theory of the Firm. *Journal of Management and Governance, 9*, 5–32.

Athanasoglou, P.,Brissimis, S., & Delis, M. (2005). Bank-Specific, Industry-Specific and Macroeconomics Determents of Bank Profitability, *Bank of Greece*, No. 25

Baba, F., & Nasieku, A.M. (2001). What do financial intermediaries do? *Journal of Banking & Finance*, 25(3), 271–294.

Bananuka, J., Nkundabanyanga, S. K., Nalukenge, I., & Kaawaase, T. (2018). Internal audit function, audit committee effectiveness and accountability in the Ugandan statutory corporations. *Journal of Financial Reporting and Accounting*, *16*(1), 138-157.

Beeler, R.A., Myers, S.C & Marcus, A J. (2008). *Fundamentals of Corporate Finance*. 6th ed. McGraw –Hill

Bhunia, A. (2012). A trend analysis of liquidity management efficiency in selected private sector Indian steel industry, *Journal of Research in Commerce and Management*, 1(1),1-5

Bouaziz, M., & Triki,M. 2012).The impact of presence of audit committee on financial performance of Tunisian companies. *International Journal of management and Business Studies, 2*(4);57-64

Braga, M., & Shastri, K. (2011). Corporate governance valuation and performance. Evidence from voluntary market reform in Brazil. *Financial Management Journal,40*(1);38-51

Burns, N. & Burns, S. (2008). *The Practice of Nursing Research: Conduct, Critique and Utilization*: 5th Edition: St Louis, Elsevier Saunders

Chakraborty, T. (2008). Working capital and profitability: an empirical analysis of Indian banks, the Icfai, *Journal of Management Research*, 3(4), 1-2

Charumathi, A. (2012). Determinants of profitability of Indian life insurers, *Proceedings of the World Congress on Engineering*, 1, 2,100-201

Chhibber, P. K., & Majumdar, S. K. (2011). Foreign ownership and profitability: property rights, control and the performance of firms in Indian Industry, *Journal of Law and Economics*, 46(3), 209–238

Chou, T. K., & Buchdadi, A. D. (2017). Independent Board, Audit Committee, Risk Committee, the Meeting Attendance level and Its Impact on the Performance: A Study of Listed Banks in Indonesia. *International Journal of Business Administration*, 8(3), 24.

Cooper, R., & Schindler, S. (2008). *Business research methods*. New York: Mc Grawhill

Cornell, B., & Shapiro,A.C. (1987). *Corporate shareholders and corporate finance*. Financial Management. Spring

Donaldson, L., & Davis, J. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Academy of Management Review, 20(1),* 65-73.

Dumitrascu,M., & Savulescu,I. (2012).Internal control and the impact on corporate governance, in Romanian listed companies. *Journal of Eastern Europe Research in Business and Economics,12*(1);1-12

Eyenubo, S. A., Mohammed, M., & Ali, M. (2017). Audit Committee Effectiveness of Financial Reporting Quality in Listed companies in the Nigeria Stock Exchange. *International Journal of Academic Research in Business and Social Sciences, 7*(6), 487-505.

Freeman, E. R. (1984). *Stakeholder Theory*. Cambridge: Cambridge University Press.

Giesbert, L., & Steiner, S. (2011). *Perceptions of Microinsurance in Southern Ghana: The role of information and peer effects*: German Institute of Global and Area Studies.

Githinji, P., & Muage,J. (2013). *Place of audit committee in the organizational chart to promote corporate governance*, Widyatama University working paper.

Institute of Internal Auditors (2008). *Managing the Business Risk of Fraud:* A Practical Guide, 2008, p. 12

IRA. (2018, June). *Corporate Governence Guidelines for Insurance and Reinsurance Companies.* Retrieved from Insurance Regulatory Authority (IRA) Website: https://www.ira.go.ke/attachments/article/63/Corporate%20Governance%20Guidelines.pdf

IRA. (2017c, February). *Insurance Industry Report for the Period January-December 2016 - Fourth Quarter Release.* Retrieved from Insurance Regulatory Authority (IRA) Website: http://www.ira.go.ke/attachments/article/134/Quarter%204%202016%20Industry%20Release.pdf

Iyer,N., & Samociuk,M. 2016). *Fraud &Corruption*. Prevention and detection. Routledge.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360

Jerubet,S., Chepng'eno,W., & Tenai,J. (2017).Effect of audit committee characteristics on quality of financial reporting on among firms listed at NSE Kenya. *International Journal of Economics, Commerce and management, 5*(1);121-133

Jovanovic, B. (1982). Selection and the evolution of industry. *Econometrics*, 50,649-670

Judge, W. Q. (2006). Institutional predictors of corporate governance legitimacy. *Journal of Management, 3(1), 412-425*.

Kantudu, A.S., & Samaila, I.A. (2015) Board characteristics, independent audit committee, and financial reporting quality of oil marketing firms: Evidence from Nigeria. *Journal of Finance, Accounting and Management, 6*(2); 34-50

Kariuki,N.,& Oluoch,J.O. (2020).Effect of audit committee size on financial reporting quality of firms listed at the Nairobi Securities Exchange. *International Journal of Social Sciences and Information Technology,1*(2);123-132

Khan, J. A. (2008). *Research Methodology*. New Delhi. APH Publishing Corporation

Kipkoech, S., & Rono,L. (2016) Effect of audit committee size, experience on firm performance among listed firms in Nairobi securities exchange, Kenya. *Research Journal of Finance and Accounting,3*(12);123-139

Klimczak,M.K. (2005). Corporate hedging and risk management theory: evidence from Polish listed companies. *Journal of Risk Finance, 9* (1);20-39

Korent, D., Đunđek, I., & Čalopa, M. (2014). Corporate governance practices and firm performance measured by Croatian Corporate Governance Index (CCGI®), *Economic Research-Ekonomska Istraživanja*, 27:1, 221-231

Kyereboah-Coleman, A., & Biekpe, N. (2006). Do boards and CEOs matter for bank performance? A comparative analysis of banks in Ghana. *Corporate Ownership & Control, 4*(1), 119-126

Lamport, M J, Latona M N, Seetanah B & Sannassee R V (2011). Relationship between corporate governance and firm performance: Evidence from a sample of top 100 Mauritian companies. *Faculty of Law and Management, University of Mauritius*

Liargovas, P.& Skandalis K. (2008).*Factors affecting firm's financial performance*. The case of Greece, Athens. University of Peloponnese Press.

Luyima, A. (2015). *Effect of corporate governance on organizational performance in insurance companies in Kenya*. Unpublished MBA research project, University of Nairobi

Milinović,M. (2014).Implementation of residual income concept in measuring company's financial performance. *A Journal of Accounting and Management,4*(2);21-30

Monks, R. A., & Minow, N. (2011). *Corporate Governance, 5th Ed.* Chichester, West Sussex, England: John Wiley & Sons.

Moses,T.(2019).Board characteristics, audit committee composition and financial reporting in Nigeria. *International Journal of Innovative Social Science& Humanities Research,7*(1);37-45

Mutai, K. (2011). *The relationship between internal audit and effective management in Embu water and sanitation company ltd*. Unpublished MBA Thesis, University of Nairobi

Muriithi, S. K. (2019). The impact of price regulation on the penetration of insurance in Kenya. A study of the registered insurance companies in Nairobi County. *The Strategic Journal of Business & Change Management, 7* (4), 1583 – 1588.

Mwangi, A. K. (2018). *Effect of Audit Committee Characteristics on Quality of Financial Reporting among Non-Commercial State Corporations in Kenya* . Unpublished PhD dissertation, Juja: JKUAT

Mwangi, M., & Murigu, J. W. (2015). The determinants of financial performance in general insurance companies in Kenya. *European Scientific Journal, 11*(1)

Nduati, L.W. (2014*). Effect of firm specific factors on financial performance of Insurance companies in Kenya*. Unpublished Msc project, University of Nairobi.

Nyaga, K., Kiragu, D. N., & Riro, G. K. (2018). *Influence of internal audit independence on internal audit effectiveness in the Kirinyaga county government, Kenya.* Nyeri: Dedan Kimathi University.

Nyamita, M. O. (2014). *Factors Influencing Debt Financing and Its Effects on Financial Performance of State Corporations in Kenya*.Doctorate Thesis. Durban University of Technology.

Nzuve, I. (2016). *Financial performance measurement of manufacturing small and medium enterprises in Pretoria: A multiple exploratory case study*. Unpublished Project. University Of South Africa

OECD. (2012). *Corporate Governance, Value Creation and Growth - The Bridge between Finance and Enterprise.* Retrieved from OECD Website.

Ogoro, G. & Simiyu, C. (2014). Effectiveness of Audit Committees in the Public Sector: A Case of Parastatals in Kenya. *Research Journal of Finance and Accounting*, 6(4), 2222- 1697.

Okiro,K.O. (2018). Effect of Audit committee on the performance of county governments in Kenya. *African Finance Journal ,2*(1)77-112

Okiro, K, Aduda, J & Omoro, N. (2015). The effect of corporate governance and capital structure on performance of firms listed at the East African Community Securities Exchange. *European Scientific Journal*, 11(7), 504-533.

Omondi, M. & Muturi, W. (2013). Factors affecting the financial performance of listed firms at the Nairobi Securities Exchange in Kenya. *Research Journal of Finance and Accounting ,4*(15);123-134

Pastor, L., & Veronesi, P. (2013). Stock valuation and learning about profitability, *Journal of Finance*, 5, 8, 1749-1789

Ragama, R. A. (2013). *Strengthening and redefining the role of the audit and supervisory committees to enhance corporate governance in deposit taking saccos in kenya* (Doctoral dissertation, University of Nairobi)

Rahman, M. M., Meah, M. R., & Chaudhory, N. U. (2019). The impact of audit characteristics on firm performance: an empirical study from an emerging economy, *The Journal of Asian Finance, Economics and Business*. *Korea Distribution Science Association, 6*(1), 59–69

Rowe, W. L. (1982). Two criticisms of the agency theory. *Philosophical Studies, 42*(3), 363–378.

Ruto, V. (2016). *The relationship between audit committee effectiveness and financial management in government ministries in Kenya*, Unpublished MBA Project, University of Nairobi

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *Journal of Finance, 52*(2), 737–783.

Siswanto, N. & Fuad,F. (2017). The impact of audit committee characteristics on Sweeney (1994). Debt-covenant violations and managers responses. *A journal of Accounting and Economics,17*(3);281-308

Stein, J., (2013). The impact of Audit Committee Existence and Audit Committee Meeting Frequency on the External Audit: Perception of Australian Auditors. *International Journal of Auditing. 11*(1), 51-69.

Wan, A.A. & Roshayani,. (2014). Disclosure of corporate governance structure and the likelihood of fraudulent financial reporting. *Social and Behavioral Sciences Journal, 145*(14); 243-253

Wang, Y & Clift, B. (2009). Is there a Business case for Board diversity? *Pacific Accounting Review ,21*(2); 88-103

Wanyanga, O. (2016). *An evaluation of audit committee characteristics and performance of manufacturing and Allied firms listed at Nairobi Securities Exchange, Kenya. Unpublished* MBA project, Maseno University.

Waweru, N. (2018). Audit committee characteristics, board ethnic diversity and earnings management: evidence from Kenya and Tanzania. *International Journal of Corporate Governance, 9*(2), 149-174.

Yee, C., Sujan, L., James,K.,& Leung,J. (2017) Perceptions of Singaporean internal audit customers regarding the role and effectiveness of the internal audit. *Asian Journal of Business and Accounting,1*(2);147-174

Zraiq, M., & Fadzil, F. (2018). The impact of audit committee characteristics on firm performance: Evidence from Jordan. *Scholar Journal of Applied Sciences and Research*, 1(5), 39-42.

APPENDICES

Appendix I: Insurance Companies in Kenya

1. AAR Insurance Company Limited
2. Africa Merchant Assurance Company Limited
3. AIG Kenya Insurance Company Limited
4. Allianz Insurance Company of Kenya Limited
5. APA Insurance Limited
6. APA Life Assurance Company Limited
7. Barclays Life Assurance Kenya Limited
8. Britam General Insurance Company (K) Limited
9. Britam Life Assurance Company (K) Limited
10. Metropolitan Cannon General Insurance Company Limited 0
11. Capex Life Assurance Company Limited
12. CIC General Insurance Company Limited
13. CIC Life Assurance Company Limited
14. Corporate Insurance Company Limited
15. Directline Assurance Company Limited
16. Fidelity Shield Insurance Company Limited
17. First Assurance Company Limited
18. GA Insurance Limited
19. GA Life Assurance Limited
20. Geminia Insurance Company Limited
21. ICEA LION General Insurance Company Limited
22. ICEA LION Life Assurance Company Limited
23. Intra Africa Assurance Company Limited
24. Invesco Assurance Company Limited
25. Kenindia Assurance Company Limited
26. Kenya Orient Insurance Limited
27. Kenya Orient Life Assurance Limited

28. KUSCCO Mutual Assurance Limited
29. Liberty Life Assurance Kenya Limited
30. Madison Insurance Company Kenya Limited
31. Madison General Insurance Kenya Limited
32. Mayfair Insurance Company Limited
33. Metropolitan Cannon Life Assurance Limited
34. Occidental Insurance Company Limited 0
35. Old Mutual Assurance Company Limited
36. Pacis Insurance Company Limited
37. MUA Insurance (Kenya) Limited
38. Pioneer General Insurance Company
39. Pioneer Assurance Company Limited
40. Prudential Life Assurance Company Limited
41. Resolution Insurance Company Limited
42. Saham Assurance Company Kenya Limited
43. Sanlam General Insurance Company Limited
44. Sanlam Life Insurance Company Limited
45. Takaful Insurance of Africa Limited
46. Tausi Assurance Company Limited
47. The Heritage Insurance Company Limited
48. The Jubilee Insurance Company of Kenya Limited
49. The Kenyan Alliance Insurance Company Limited
50. The Monarch Insurance Company Limited
51. Trident Insurance Company Limited
52. UAP Insurance Company Limited
53. UAP Life Assurance Limited
54. Xplico Insurance Company Limited

Source: AKI (2020)

Appendix I: Data Collection Schedule

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
1	2016	-0.160	0.727	2.000	9.000	0.662	4.000	2.000	0.513	1.766	3.340
1	2017	-0.060	0.889	3.000	9.000	0.655	4.000	2.000	0.456	2.909	3.210
1	2018	0.150	0.900	4.000	10.000	0.644	4.000	2.000	0.676	5.958	3.110
1	2019	0.040	0.900	1.000	10.000	0.591	4.000	2.000	0.745	11.648	2.980
1	2020	0.050	0.900	3.000	10.000	0.519	4.000	2.000	0.723	7.503	2.860
2	2016	0.140	0.944	4.000	18.000	0.492	4.000	1.000	0.274	2.123	3.340
2	2017	0.150	0.944	2.000	18.000	0.504	4.000	1.000	0.325	3.237	3.340
2	2018	0.120	0.944	3.000	11.000	0.538	4.000	1.000	0.289	1.082	3.320
2	2019	0.090	0.944	4.000	11.000	0.525	4.000	1.000	0.295	2.279	3.280
2	2020	0.110	0.889	3.000	11.000	0.505	4.000	1.000	0.275	1.303	3.390
3	2016	0.010	0.875	4.000	10.000	0.552	4.000	0.000	0.643	1.594	1.094
3	2017	0.020	0.875	3.000	10.000	0.492	4.000	0.000	0.666	1.438	1.087
3	2018	0.020	0.875	2.000	10.000	0.490	4.000	0.000	0.664	1.013	1.098
3	2019	0.040	0.875	1.000	10.000	0.442	4.000	0.000	0.653	0.911	1.102
3	2020	0.060	0.875	3.000	10.000	0.416	4.000	0.000	0.637	2.355	1.109
4	2016	0.130	0.889	4.000	9.000	0.607	4.000	1.000	0.116	3.047	2.320
4	2017	0.120	0.714	2.000	9.000	0.575	4.000	1.000	0.132	3.001	2.280
4	2018	0.130	0.714	1.000	9.000	0.539	4.000	1.000	0.166	2.807	2.270
4	2019	0.170	0.714	3.000	10.000	0.470	4.000	1.000	0.147	2.973	2.340
4	2020	0.220	0.714	2.000	10.000	0.482	4.000	1.000	0.127	2.834	2.290

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
5	2016	0.040	0.714	3.000	13.000	0.587	4.000	2.000	0.701	3.249	1.873
5	2017	0.050	0.818	2.000	13.000	0.636	4.000	2.000	0.691	6.252	1.877
5	2018	0.010	0.818	3.000	13.000	0.614	9.000	2.000	0.702	2.076	1.892
5	2019	0.010	0.818	4.000	13.000	0.645	4.000	2.000	0.650	2.051	1.875
5	2020	0.070	0.833	3.000	13.000	0.647	4.000	2.000	0.538	2.674	1.839
6	2016	-0.100	0.833	2.000	9.000	0.740	4.000	2.000	0.733	1.940	4.420
6	2017	-0.080	0.833	3.000	11.000	0.740	4.000	2.000	0.661	1.022	4.450
6	2018	0.020	0.833	4.000	11.000	0.743	4.000	2.000	0.595	0.721	4.760
6	2019	0.390	0.833	2.000	11.000	0.721	4.000	2.000	0.608	0.699	4.890
6	2020	0.060	0.833	4.000	11.000	0.748	4.000	2.000	0.550	0.803	4.950
7	2016	-0.040	0.833	4.000	7.000	0.826	4.000	1.000	0.383	1.052	2.760
7	2017	0.150	0.857	3.000	9.000	0.830	4.000	1.000	0.355	2.357	2.740
7	2018	0.310	0.857	2.000	11.000	0.833	4.000	1.000	0.403	2.297	2.680
7	2019	-0.020	0.857	3.000	11.000	0.833	4.000	1.000	0.573	2.681	2.740
7	2020	0.110	0.857	3.000	11.000	0.843	4.000	1.000	0.561	2.348	2.680
8	2016	0.350	0.867	3.000	5.000	0.722	4.000	2.000	0.289	2.620	2.560
8	2017	-0.180	0.867	3.000	5.000	0.730	4.000	2.000	0.551	1.316	2.540
8	2018	0.390	0.867	3.000	5.000	0.729	4.000	2.000	0.431	1.196	2.620
8	2019	-0.190	0.875	4.000	5.000	0.741	4.000	2.000	0.765	1.174	2.570
8	2020	0.050	0.875	4.000	5.000	0.759	4.000	2.000	0.580	1.206	2.610
9	2016	0.100	0.875	3.000	10.000	0.817	4.000	3.000	0.248	1.228	1.002
9	2017	0.110	0.875	3.000	10.000	0.817	4.000	3.000	0.241	1.056	1.002

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
9	2018	0.120	0.875	2.000	10.000	0.817	4.000	3.000	0.358	1.096	1.002
9	2019	0.040	0.875	2.000	10.000	0.817	4.000	3.000	0.228	1.112	1.002
9	2020	0.050	0.889	2.000	10.000	0.817	4.000	3.000	0.221	1.160	1.002
10	2016	0.020	0.889	2.000	10.000	0.652	4.000	2.000	0.514	1.123	2.680
10	2017	0.020	0.889	3.000	10.000	0.713	4.000	2.000	0.530	4.511	2.720
10	2018	0.190	0.889	3.000	10.000	0.780	4.000	2.000	0.587	6.296	2.690
10	2019	0.020	0.889	3.000	10.000	0.775	4.000	2.000	0.693	10.089	2.680
10	2020	0.030	0.889	4.000	10.000	0.755	4.000	2.000	0.607	4.258	2.710
11	2016	0.090	0.889	4.000	10.000	0.724	4.000	1.000	0.535	8.843	9.720
11	2017	0.090	0.889	4.000	10.000	0.721	4.000	1.000	0.592	1.107	9.770
11	2018	0.100	0.889	3.000	11.000	0.710	4.000	1.000	0.508	1.146	9.520
11	2019	0.040	0.889	3.000	10.000	0.651	4.000	1.000	0.693	1.382	9.760
11	2020	0.020	0.889	2.000	10.000	0.710	4.000	1.000	0.763	1.536	9.650
12	2016	0.020	0.889	2.000	11.000	0.822	4.000	0.000	0.795	1.464	10.549
12	2017	0.020	0.889	3.000	11.000	0.819	4.000	0.000	0.785	1.283	10.549
12	2018	0.030	0.889	3.000	11.000	0.820	13.000	0.000	0.697	1.168	10.549
12	2019	0.040	0.889	3.000	10.000	0.812	8.000	0.000	0.668	1.305	10.549
12	2020	0.030	0.899	4.000	9.000	0.805	8.000	0.000	0.683	1.197	10.549
13	2016	-0.060	0.899	4.000	5.000	0.950	4.000	1.000	1.307	1.161	10.512
13	2017	-0.190	0.899	4.000	5.000	0.950	4.000	1.000	1.229	1.585	10.512
13	2018	-0.190	0.899	3.000	5.000	0.950	4.000	1.000	1.033	0.946	10.512
13	2019	-0.020	0.899	3.000	5.000	0.950	4.000	1.000	0.810	1.085	10.512

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
13	2020	-0.040	0.899	3.000	5.000	0.950	4.000	1.000	0.746	1.024	6.172
14	2016	0.300	0.900	3.000	7.000	0.791	4.000	2.000	0.156	1.469	6.172
14	2017	0.240	0.900	2.000	7.000	0.793	4.000	2.000	0.174	0.984	6.172
14	2018	0.200	0.900	2.000	7.000	0.790	4.000	2.000	0.336	1.334	8.570
14	2019	0.170	0.900	2.000	7.000	0.789	4.000	2.000	0.322	1.540	3.466
14	2020	0.140	0.900	1.000	7.000	0.787	4.000	2.000	0.377	1.259	7.433
15	2016	0.000	0.909	2.000	6.000	0.782	4.000	2.000	0.393	1.115	7.060
15	2017	-0.200	0.909	2.000	6.000	0.884	4.000	2.000	0.444	4.144	10.053
15	2018	-0.010	0.909	3.000	6.000	0.784	4.000	2.000	0.384	6.657	10.053
15	2019	-0.020	0.909	4.000	6.000	0.785	4.000	2.000	0.328	7.954	5.900
15	2020	0.120	0.909	2.000	6.000	0.791	4.000	2.000	0.270	8.475	5.900
16	2016	0.020	0.909	3.000	6.000	0.392	4.000	1.000	0.142	3.345	5.901
16	2017	0.030	0.909	4.000	6.000	0.391	4.000	1.000	0.104	0.951	6.268
16	2018	0.130	0.909	1.000	6.000	0.392	4.000	1.000	0.090	1.097	6.268
16	2019	0.380	0.909	3.000	6.000	0.394	4.000	1.000	0.188	1.422	8.848
16	2020	0.010	0.909	4.000	6.000	0.393	4.000	1.000	0.295	1.486	9.532
17	2016	-0.050	0.909	2.000	10.000	0.394	4.000	2.000	0.582	1.736	9.532
17	2017	0.050	0.909	3.000	10.000	0.620	4.000	2.000	0.529	1.237	2.326
17	2018	-0.070	0.909	4.000	10.000	0.648	4.000	2.000	0.569	0.950	2.326
17	2019	0.050	0.909	3.000	10.000	0.654	4.000	2.000	0.462	0.935	2.591
17	2020	0.050	0.909	4.000	10.000	0.638	4.000	2.000	0.507	0.968	2.591
18	2016	0.070	0.909	3.000	9.000	0.645	4.000	3.000	0.437	1.224	2.591

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
18	2017	0.060	0.917	2.000	9.000	0.668	4.000	3.000	0.465	1.643	6.646
18	2018	0.050	0.917	1.000	9.000	0.691	4.000	3.000	0.486	1.032	2.000
18	2019	0.040	0.917	3.000	9.000	0.541	4.000	3.000	0.495	0.923	2.000
18	2020	0.030	0.917	4.000	9.000	0.478	4.000	3.000	0.615	0.897	2.000
19	2016	-0.210	0.917	2.000	9.000	0.492	4.000	2.000	1.006	1.157	2.000
19	2017	-0.050	0.923	1.000	9.000	0.492	4.000	2.000	0.797	0.502	2.000
19	2018	-0.050	0.923	3.000	9.000	0.492	4.000	2.000	0.966	0.465	4.259
19	2019	-0.080	0.923	2.000	9.000	0.492	4.000	2.000	0.366	0.563	4.485
19	2020	0.030	0.923	3.000	9.000	0.492	4.000	2.000	0.446	1.400	2.854
20	2016	-0.570	0.935	2.000	9.000	0.645	4.000	1.000	1.419	0.624	2.844
20	2017	-0.530	0.909	3.000	9.000	0.668	4.000	1.000	0.867	0.740	2.844
20	2018	0.080	0.909	4.000	9.000	0.669	4.000	1.000	0.520	0.693	2.844
20	2019	0.060	0.909	3.000	9.000	0.688	4.000	1.000	0.475	0.563	2.674
20	2020	0.000	0.909	2.000	9.000	0.713	4.000	1.000	0.466	0.636	3.005
21	2016	0.060	0.909	3.000	7.000	0.533	4.000	0.000	0.381	2.205	3.005
21	2017	0.070	0.909	4.000	7.000	0.541	4.000	0.000	0.383	2.524	3.005
21	2018	0.060	0.909	2.000	7.000	0.491	4.000	0.000	0.394	3.374	2.000
21	2019	0.040	0.909	4.000	7.000	0.477	4.000	0.000	0.471	2.833	2.000
21	2020	0.120	0.909	4.000	7.000	0.416	4.000	0.000	0.279	3.020	2.000
22	2016	0.130	0.909	3.000	15.000	0.690	4.000	1.000	0.285	4.402	2.000
22	2017	0.160	0.909	2.000	15.000	0.692	4.000	1.000	0.295	2.328	2.000
22	2018	0.200	0.909	3.000	15.000	0.675	4.000	1.000	0.266	1.771	2.000

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
22	2019	0.230	0.909	3.000	14.000	0.581	15.000	1.000	0.280	1.895	2.000
22	2020	0.020	0.909	3.000	14.000	0.561	4.000	1.000	0.277	2.131	2.000
23	2016	0.060	0.714	3.000	8.000	0.428	4.000	2.000	0.240	0.955	2.000
23	2017	0.060	0.818	3.000	8.000	0.558	4.000	2.000	0.261	1.219	2.000
23	2018	0.100	0.818	4.000	8.000	0.615	4.000	2.000	0.240	1.156	2.000
23	2019	0.080	0.818	4.000	7.000	0.619	4.000	2.000	0.216	1.116	3.782
23	2020	0.120	0.818	3.000	7.000	0.571	4.000	2.000	0.820	1.078	3.782
24	2016	0.160	0.909	3.000	7.000	0.628	5.000	2.000	0.888	1.524	3.782
24	2017	0.140	0.909	2.000	7.000	0.631	13.000	2.000	0.801	1.488	3.782
24	2018	0.110	0.917	2.000	6.000	0.602	13.000	2.000	0.855	1.277	3.782
24	2019	0.110	0.917	2.000	6.000	0.500	16.000	2.000	0.868	1.300	1.002
24	2020	0.170	0.917	2.000	6.000	0.367	16.000	2.000	0.078	1.100	1.002
25	2016	0.050	0.917	3.000	7.000	0.645	16.000	1.000	0.091	0.630	1.002
25	2017	0.010	0.917	3.000	7.000	0.668	16.000	1.000	0.148	1.595	1.002
25	2018	-0.090	0.917	3.000	7.000	0.503	16.000	1.000	0.191	1.487	1.002
25	2019	0.100	0.917	4.000	7.000	0.382	16.000	1.000	0.239	1.285	1.087
25	2020	-0.030	0.917	4.000	7.000	0.173	16.000	1.000	0.265	1.410	1.094
26	2016	0.050	0.857	4.000	7.000	0.667	16.000	2.000	0.221	0.343	1.098
26	2017	0.010	0.875	3.000	8.000	0.700	16.000	2.000	0.229	0.672	1.102
26	2018	0.090	0.875	3.000	8.000	0.700	16.000	2.000	0.253	2.973	1.109
26	2019	-0.030	0.875	2.000	7.000	0.700	16.000	2.000	0.303	2.834	1.839
26	2020	0.050	0.857	2.000	7.000	0.700	16.000	2.000	0.294	3.249	1.873

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
27	2016	-0.010	0.875	3.000	16.000	0.700	4.000	3.000	0.280	6.252	1.875
27	2017	0.070	0.938	3.000	16.000	0.727	4.000	3.000	0.284	2.076	1.877
27	2018	0.090	0.938	3.000	16.000	0.727	4.000	3.000	0.382	2.051	1.892
27	2019	-0.070	0.923	4.000	13.000	0.727	4.000	3.000	0.283	2.674	2.270
27	2020	-0.080	0.938	4.000	13.000	0.750	4.000	3.000	0.271	2.828	2.280
28	2016	0.010	0.857	4.000	14.000	0.750	4.000	2.000	0.267	2.910	2.290
28	2017	0.000	0.929	3.000	14.000	0.620	4.000	2.000	0.236	3.463	2.320
28	2018	0.080	0.929	3.000	14.000	0.676	4.000	2.000	0.241	3.601	2.340
28	2019	-0.070	0.889	3.000	14.000	0.640	17.000	2.000	1.139	4.359	2.540
28	2020	-0.250	0.889	3.000	14.000	0.622	4.000	2.000	0.939	1.766	2.560
29	2016	-0.140	0.917	2.000	12.000	0.637	4.000	1.000	0.728	2.909	2.570
29	2017	-0.160	0.917	2.000	12.000	0.602	4.000	1.000	0.673	5.958	2.610
29	2018	0.000	0.917	2.000	12.000	0.546	4.000	1.000	0.587	11.648	2.620
29	2019	0.010	0.917	1.000	13.000	0.563	4.000	1.000	0.476	7.503	2.680
29	2020	0.000	0.917	2.000	13.000	0.505	4.000	1.000	0.437	2.123	2.680
30	2016	-0.030	0.900	2.000	10.000	0.432	25.000	0.000	0.388	3.237	2.680
30	2017	0.010	0.900	3.000	10.000	0.347	25.000	0.000	0.347	1.082	2.680
30	2018	0.030	0.900	4.000	10.000	0.416	25.000	0.000	0.346	2.279	2.690
30	2019	0.040	0.900	2.000	10.000	0.439	25.000	0.000	0.348	1.303	2.710
30	2020	0.030	0.900	3.000	10.000	0.439	25.000	0.000	0.347	1.594	2.720
31	2016	0.020	0.800	4.000	5.000	0.302	16.000	1.000	0.310	1.438	2.740
31	2017	0.040	0.800	1.000	5.000	0.555	16.000	1.000	0.357	1.013	2.740

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
31	2018	0.060	0.800	3.000	5.000	0.605	21.000	1.000	0.369	0.911	2.760
31	2019	-0.230	0.800	4.000	5.000	0.649	21.000	1.000	0.683	2.355	2.860
31	2020	0.030	0.800	2.000	5.000	0.620	21.000	1.000	0.679	3.047	2.980
32	2016	0.030	0.909	3.000	11.000	0.545	8.000	2.000	0.594	3.001	3.110
32	2017	0.100	0.909	4.000	11.000	0.360	11.000	2.000	0.763	2.807	3.210
32	2018	0.030	0.909	3.000	11.000	0.424	21.000	2.000	0.754	2.973	3.280
32	2019	-0.040	0.909	4.000	11.000	0.403	13.000	2.000	1.087	2.834	3.320
32	2020	-0.040	0.909	3.000	11.000	0.364	22.000	2.000	1.053	3.249	3.340
33	2016	-0.100	0.917	2.000	12.000	0.029	22.000	2.000	1.011	6.252	3.340
33	2017	0.000	0.917	1.000	12.000	0.302	12.000	2.000	0.906	2.076	3.340
33	2018	0.030	0.917	3.000	12.000	0.302	12.000	2.000	0.889	2.051	3.390
33	2019	-0.080	0.917	4.000	12.000	0.266	5.000	2.000	0.530	2.674	4.420
33	2020	-0.030	0.917	2.000	12.000	0.379	5.000	2.000	0.526	2.271	4.450
34	2016	0.000	0.750	1.000	8.000	0.309	5.000	1.000	0.537	1.838	4.760
34	2017	0.000	0.750	3.000	8.000	0.453	5.000	1.000	0.452	2.358	4.890
34	2018	-0.110	0.750	2.000	8.000	0.480	5.000	1.000	0.403	2.522	4.950
34	2019	0.100	0.750	3.000	8.000	0.487	5.000	1.000	0.046	1.310	9.520
34	2020	0.090	0.833	2.000	8.000	0.462	5.000	1.000	0.075	1.175	9.720
35	2016	0.160	0.714	3.000	9.000	0.496	12.000	2.000	0.075	1.170	9.760
35	2017	0.190	0.714	4.000	9.000	0.611	12.000	2.000	0.084	1.167	9.770
35	2018	0.230	0.818	3.000	9.000	0.652	12.000	2.000	0.364	1.138	5.251
35	2019	0.190	0.818	2.000	9.000	0.658	12.000	2.000	0.560	0.448	5.267

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
35	2020	0.260	0.818	3.000	9.000	0.626	12.000	2.000	0.524	1.042	5.271
36	2016	0.270	0.818	4.000	8.000	0.654	5.000	3.000	0.526	1.059	5.261
36	2017	0.230	0.800	2.000	8.000	0.624	5.000	3.000	0.555	1.112	5.230
36	2018	0.220	0.875	4.000	8.000	0.689	5.000	3.000	0.025	1.125	5.428
36	2019	0.060	0.875	4.000	8.000	0.645	5.000	3.000	0.718	1.159	5.310
36	2020	-0.230	0.875	3.000	8.000	0.668	5.000	3.000	0.710	1.144	5.372
37	2016	-0.120	0.875	2.000	11.000	0.728	4.000	2.000	0.636	1.145	5.436
37	2017	-0.050	0.875	3.000	11.000	0.629	4.000	2.000	0.567	1.094	4.269
37	2018	0.060	0.571	3.000	11.000	0.609	4.000	2.000	0.491	1.033	4.271
37	2019	0.050	0.571	3.000	11.000	0.739	4.000	2.000	0.492	1.271	3.838
37	2020	0.090	0.571	3.000	11.000	0.743	4.000	2.000	0.448	1.278	3.877
38	2016	0.130	0.571	3.000	9.000	0.517	4.000	1.000	0.423	1.172	3.836
38	2017	0.170	0.714	4.000	9.000	0.517	4.000	1.000	0.437	1.166	4.358
38	2018	-0.120	0.889	4.000	9.000	0.517	4.000	1.000	0.486	1.558	4.396
38	2019	0.040	0.889	3.000	9.000	0.517	4.000	1.000	0.392	1.623	4.293
38	2020	0.030	0.889	3.000	9.000	0.517	4.000	1.000	0.280	1.638	3.741
39	2016	-0.040	0.889	2.000	9.000	0.517	4.000	0.000	0.530	1.605	3.267
39	2017	0.050	0.889	2.000	9.000	0.517	4.000	0.000	0.468	1.505	3.316
39	2018	0.039	0.889	2.000	9.000	0.457	4.000	0.000	0.450	1.265	3.354
39	2019	0.039	0.889	2.000	9.000	0.475	4.000	0.000	0.442	1.287	3.382
39	2020	0.036	0.889	3.000	9.000	0.475	4.000	0.000	0.341	1.278	3.414
40	2016	0.028	0.941	3.000	17.000	0.475	14.000	1.000	0.283	1.222	3.267

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
40	2017	0.050	0.933	3.000	15.000	0.457	14.000	1.000	0.400	1.047	3.316
40	2018	0.039	0.933	4.000	15.000	0.475	14.000	1.000	0.318	1.169	3.354
40	2019	0.039	0.933	4.000	15.000	0.538	14.000	1.000	0.399	1.125	3.382
40	2020	0.036	0.933	4.000	15.000	0.538	14.000	1.000	0.400	1.100	3.414
41	2016	0.028	0.938	3.000	14.000	0.523	12.000	2.000	0.335	1.042	3.291
41	2017	0.045	0.938	3.000	16.000	0.538	12.000	2.000	0.326	1.240	3.343
41	2018	0.045	0.938	2.000	12.000	0.457	12.000	2.000	0.338	1.198	3.347
41	2019	0.047	0.938	2.000	12.000	0.529	12.000	2.000	0.376	1.159	3.369
41	2020	0.028	0.938	3.000	12.000	0.529	12.000	2.000	0.337	1.148	3.399
42	2016	0.037	0.917	3.000	12.000	0.489	12.000	2.000	0.460	1.081	3.035
42	2017	0.042	0.917	3.000	12.000	0.489	12.000	2.000	0.679	2.095	3.083
42	2018	0.041	0.923	4.000	13.000	0.600	9.000	2.000	0.414	2.365	3.164
42	2019	0.043	0.938	4.000	16.000	0.600	9.000	2.000	0.737	2.520	3.219
42	2020	0.039	0.941	4.000	17.000	0.600	6.000	2.000	0.546	2.253	3.229
43	2016	0.036	0.909	3.000	11.000	0.600	14.000	1.000	0.390	2.313	2.966
43	2017	0.014	0.909	3.000	11.000	0.600	15.000	1.000	0.440	2.941	3.089
43	2018	0.007	0.909	3.000	11.000	0.500	15.000	1.000	0.420	2.381	3.096
43	2019	-0.010	0.909	3.000	11.000	0.500	15.000	1.000	0.380	2.632	3.061
43	2020	0.001	0.909	2.000	11.000	0.500	39.000	1.000	0.230	4.348	3.484
44	2016	0.038	0.900	2.000	14.000	0.500	4.000	2.000	0.202	4.950	3.509
44	2017	0.040	0.900	2.000	14.000	0.500	4.000	2.000	0.368	2.717	3.576
44	2018	0.045	0.900	1.000	14.000	0.400	4.000	2.000	0.331	3.021	3.670

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
44	2019	0.039	0.900	2.000	14.000	0.400	4.000	2.000	0.308	3.247	3.703
44	2020	0.041	0.900	2.000	14.000	0.400	4.000	2.000	0.280	3.571	2.290
45	2016	0.040	0.900	3.000	12.000	0.400	4.000	3.000	0.211	4.739	3.043
45	2017	0.042	0.900	4.000	12.000	0.400	4.000	3.000	0.460	2.174	3.138
45	2018	0.023	0.899	2.000	12.000	0.509	4.000	3.000	0.340	2.941	3.170
45	2019	0.041	0.899	3.000	13.000	0.509	4.000	3.000	0.304	3.289	3.215
45	2020	0.041	0.899	4.000	13.000	0.509	4.000	3.000	0.291	3.436	2.609
46	2016	0.019	0.899	1.000	10.000	0.509	4.000	2.000	0.337	2.967	2.670
46	2017	0.019	0.899	3.000	10.000	0.509	4.000	2.000	0.376	2.660	2.782
46	2018	0.016	0.899	4.000	10.000	0.600	4.000	2.000	0.679	1.473	2.001
46	2019	0.021	0.889	2.000	10.000	0.600	4.000	2.000	0.414	2.415	2.000
46	2020	0.011	0.889	3.000	10.000	0.600	4.000	2.000	0.737	1.357	3.334
47	2016	0.056	0.889	4.000	14.000	0.600	4.000	1.000	0.546	1.832	3.377
47	2017	0.056	0.889	3.000	14.000	0.600	4.000	1.000	0.390	2.564	3.441
47	2018	0.067	0.889	4.000	14.000	0.350	4.000	1.000	0.340	2.941	3.533
47	2019	0.052	0.889	3.000	14.000	0.350	4.000	1.000	0.440	2.273	3.579
47	2020	0.042	0.889	2.000	14.000	0.350	4.000	1.000	0.604	1.656	3.300
48	2016	0.040	0.889	1.000	12.000	0.350	4.000	0.000	0.480	2.083	3.360
48	2017	0.042	0.889	3.000	12.000	0.433	4.000	0.000	0.400	2.500	3.451
48	2018	0.033	0.889	4.000	12.000	0.314	9.000	0.000	0.340	2.941	3.531
48	2019	0.034	0.889	2.000	13.000	0.314	4.000	0.000	0.240	4.167	3.544
48	2020	0.038	0.889	1.000	13.000	0.418	4.000	0.000	0.230	4.348	2.670

Firm ID	Year	ROA	AC independence	AC Tenure	AC size	AC financial expertise	AC meetings	AC multiple directorship	Underwriting risk	Liquidity	Solvency margin
49	2016	0.023	0.889	3.000	10.000	0.418	4.000	1.000	0.202	4.950	2.782
49	2017	0.029	0.889	2.000	10.000	0.418	4.000	1.000	0.368	2.717	3.234
49	2018	0.032	0.889	3.000	10.000	0.418	4.000	1.000	0.331	3.021	3.298
49	2019	0.025	0.889	2.000	10.000	0.400	4.000	1.000	0.308	3.247	3.312
49	2020	0.022	0.889	3.000	10.000	0.475	4.000	1.000	0.280	3.571	1.846