AUDIT COMMITTEE ATTRIBUTES, FIRM CHARACTERISTICS, INTERNAL CONTROL FRAMEWORK AND FINANCIAL REPORTING QUALITY OF THE STATE-OWNED COMMERCIAL ENTERPRISES IN KENYA

BY

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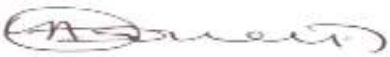
DECLARATION

I hereby declare that the work contained in this thesis is my original work and has not been presented for a degree in any other university. All materials referred to have been dully acknowledged.

Signature:  Date: August 1, 2021

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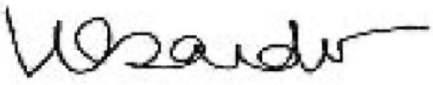
Signature  Date: August 25, 2021

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DEDICATION

I dedicate the thesis to:

The Almighty Father,
Whose gift of life has seen my dream come true

To my wonderful family,
Love of my life, Morgan; Children: Marion, Annabel, Herman, Adrian & Alex.
Thank you for sacrificing your limited time and being there for me.

To my parents,
Mama Margaret Adhiambo Wasonga and the late Mzee Wasonga Ondigo (who never lived to see his fruits and dreams).

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MAY THE ALMIGHTY FATHER BLESS YOU ALL

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LIST OF ABREVIATION AND ACRONYMS

AC	Audit Committee
ACA	Audit Committee Attributes
AQ	Accrual Quality
ASX	Australian Securities Exchange
BRC	Blue Robin Commission
CA	Control Assessment
CBK	Central Bank of Kenya
CE	Control Environment
CMA	Capital Markets Authority
COSO	Committee of Sponsoring Organization
CPA	Certified Public Accountant
ED	Exposure Draft
FC	Firm Characteristics
FR	Financial Reporting
FRQ	Financial Reporting Quality
GAO	General Accounting Office
IASB	International Accounting Standards Board
IC	Internal Control
ICF	Internal Control Framework
ICDI	Internal Control Disclosure Index
ICPAK	Institute of Certified Public Accountants of Kenya
IIA	Institute of Internal Auditors
LI	Legal Instrument
MBA	Master of Business Administration
MN	Monitoring
NAS	Non Audit Service
NASDAQ	National Association of Securities Dealers Automated Quotes
NSE	Nairobi Securities Exchange
NYSE	New York Securities Exchange
PFM Act	Public Finance Management Act

PSASB	Public Sector Accounting Standards Board
PAC	Public Accounts Committee
PIC	Public Investment Committee
QC	Qualitative Characteristics
SEC	Securities Exchange Commission
SOX	Sarbanes-Oxley Act
SOCEs	State-Owned Commercial Enterprises
RA	Risk Assessment

ABSTRACT

There is very limited information available on the effect of audit committee attributes, firm characteristics and internal control framework on financial reporting quality of state-owned commercial enterprises in Kenya with majority of evidence on financial reporting quality obtained from public listed and private companies, locally and internationally. The government from time to time has enacted various laws and regulations and issued guidelines with the aim of strengthening financial reporting quality and internal controls to safeguard stakeholder's interests. Notwithstanding these intercessions, innumerable state-owned commercial enterprises have failed to demonstrate quality financial reporting in the annual reports and audited financial statements. The primary objective of the study was to establish the relationships among audit committee attributes, firm characteristics, internal control framework and financial reporting quality of state-owned commercial enterprises in Kenya. Distinctively, the study explored to establish the relationship between audit committee attributes and financial reporting quality; to determine the effect of firm characteristics on the relationship between audit committee attributes and financial reporting quality; determine the effect of internal control framework on the relationship between audit committee attributes and financial reporting quality and to establish the joint effect of audit committee attributes, firm characteristics and internal control framework on financial reporting quality of SOCEs in Kenya. Numerous measures have been used in examining financial reporting quality by researchers. However, this study used accrual quality, qualitative characteristics and timeliness of reporting as indicators of financial reporting quality. The research was anchored on agency theory supported by institutional, power and actor-network theories and guided by positivism research philosophy and used correlational and descriptive research design. The study used secondary data for a period of eleven years (2008-2018) to construct amalgamated data on study variables with a study population of 122 state-owned commercial enterprises as of 31st May 2018. The study employed correlation and panel regression analysis model in the achievement of the study objectives. Further, the study adopted Baron and Kenny (1986) approach in testing for moderation and mediation effect of firm characteristics and internal control framework respectively on the relationship between audit committee attributes and financial reporting quality of SOCEs while panel regression analysis model was used to examine the joint effect of audit committee attributes, firm characteristics and internal control framework on financial reporting quality. The results revealed that a statistically significant relationship existed between audit committee attributes and financial reporting quality while firm characteristics except for firm liquidity were found not to moderate the relationship between audit committee attributes and financial reporting quality at 5% significant level. Further, internal control framework did not mediate the relationship between audit committee attributes and financial reporting quality. Audit committee attributes, firm characteristics and internal control framework jointly significantly predicted financial reporting quality of state-owned commercial enterprises in Kenya. The study recommends standard setters, boards and management and other stakeholders in state-owned commercial enterprises design and implements internal controls that enhance financial reporting quality. Secondly, audit committee members appointed possess the right qualification and expertise to ensure that quality information is disclosed in audited financial statements and annual reports augment and improve financial reporting quality.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

High profile accounting improprieties (Enron; WorldCom) has placed the roles of audit committee (AC) at the fight against fraudulent financial reporting, hence increased demand for enhanced corporate governance mechanisms (Mohiuddin & Karbhari, 2010). Stakeholders and investors depend on the quality of financial information disclosures in financial statements and annual reports. Bedard and Gendron (2010) observe that regulators expecting independent AC with frequent sessions to strengthen quality of financial information while maintaining and/ or strengthening financial reporting quality (FRQ). AC is believed to improve quality of financial information through oversight on FR process and internal control framework leading to investor confidence (Bedard & Gendron, 2010). Further, it is argued that audit committee provides oversight responsibilities while protecting shareholders' interests in organizations (Chen et. al., 2008; Turley & Zaman, 2007) and small firms with high growth potential have been observed to impact positively on financial reporting quality but no indication on relationship with audit committee attributes and financial reporting quality (Wallace & Nasser, 1995).

Different theories have been used in audit committee's research drawing from various perspectives including legal, economics, psychology and sociology. Bedard and Gendron (2010) applied agency theory in explaining how audit committee attributes (ACA) impacted quality of financial reporting. This position independence of audit committee, size, qualification and number of meetings held in a year to be contributing factors on the

quality of financial reporting. The context of ACA express effects and firm characteristics on FRQ is not merely expounded by constructive accounting propositions which explore FRQ but there are other accounting theories explaining occurrence, incentive and factors in financial reporting.

The studies designating substantial dissimilarities in FRQ are not adequately explained by audit committee diligence, authority and resources, firm specific characteristics and internal control disclosure (Khlif & Samaha, 2016; Doyle, GE & McVay, 2007). This has signals for additional research on other attributes in view of quality of accounting and financial information multifaceted. While legal perspective observes that audit committee roles are prescribed by laws and regulations, agency theory suggests that monitoring of management by AC strengthens financial information and reporting process quality (Bedard & Gendron, 2010).

The expertise paradigm as one of the psychological perspectives and institutional theory has affirmed the linkage among firm characteristics, audit committee qualification and financial reporting quality (Bedard & Chi, 1993). Turley and Zaman (2007) assert that AC may have influence as supported by power theory on and be affected by use of authority by members and other stakeholders drawing power from different sources. Spira (1999) argue that actor-network theory recognizes uncertainty fragmenting networks and empowers scholars to evaluate convoluted associations among audit committee players. The study is premised on the economic (agency) theoretical perspective in explaining the relationships amongst audit committee attributes, firm characteristics, internal control framework and financial reporting quality.

State-owned commercial enterprises (SOCEs) have audit committee providing oversight over internal control and financial reporting. Evidence has shown a significant rise in oversight on internal control framework (ICF) over FR quality by AC (Collier & Gregory, 1998) but hasn't revealed how audit committee attributes, firm characteristics and internal control framework impacts financial reporting quality. Many gaps and inaccuracy in most financial reports of SOCEs have been revealed by various studies (Barako, 2007; Omoro, 2014) irrespective of compliance requirements by the International Financial Reporting Standards (IFRS). Despite several structures and legislative framework (PSASB, 2016; Mwongozo, 2015) established to facilitate financial reporting quality in SOCEs in Kenya, little improvement has been witnessed. This has necessitated the need to investigate how audit committee attributes, firm characteristics (FC) and internal control framework (ICF) impact the quality of financial reporting of the SOCEs in Kenya.

1.1.1 Audit Committee Attributes

Audit committee attributes (ACA) have become a critical pillar in corporate governance structure owing to increased changes in regulatory requirements and demand by stakeholders. While DeZoort et al. (2002) defines AC attribute as variable or trait that impact on the effectiveness of an audit committee, they view AC as a team comprised of competent members with expertise and resources to safeguard shareholder's interest by guaranteeing dependable financial reporting, internal controls and risk management through diligent oversight efforts. This has been further supported by Sarbanes Oxley Act (SOX) (2002, 205) which assert that AC is a team constituted by and among directors of a corporation with a resolution of providing oversight over monetary disclosure

procedures and audits of financial statements. Turley and Zaman (2007) recognizes that corporate control environment has been shifting in the recent past, predominantly in the emergence of Enron and other corporate irregularities leading to a demand for stronger and reliable internal control framework and effective audit committee to enhance quality financial reporting. They further note that while the duty and responsibility of AC on financial reporting haven't progressed, the threat arise from appointing ethical individuals possessing proper qualification and competence to AC to perform their roles and have meaningful impact on financial disclosure procedures.

The role of AC attributes (ACA) cannot be overemphasized and SOX (2002) assert that independent audit committee enhances effective financial reporting monitoring as it is mandated with overseeing the financial disclosure undertaking as well as oversight over financial reporting. The role of AC is viewed as assisting the board on the oversight over integrity of financial statements, company's compliance with legal and regulatory requirements, determination of independent auditor's qualification and independence, and performance of the corporation's internal audit and the independent auditor through strong institutional structures as supported by institutional theory (Woodlock, 2006). Siti and Nazli (2012) assert that the ultimate goal of AC help is to guard against stockholders' engrossment and could be achieved through utilization of competent members with sufficient expertise and resources to provide meticulous oversight. Ezzamel (1994) further argues that actor-network theory cements the privacy concerns linked to AC's forthright surveillance as a character in the stakeholders' web.

Different scholars have used different methods to measure impact of AC attributes on quality of financial reporting. Mohiuddin and Karbhari (2010) used AC's attributes of independence, qualification/financial knowledge of members, size and frequency of meetings to measure audit committee effectiveness. Woodlock (2006) further observes that effective oversight of audit committee begins with competence and independence of members. DeZoort et al. (2002) asserts that independent AC protects shareholders' interest through guaranteeing solid financial reporting, potent internal control and robust risk management. The study used audit committee attributes of independence, qualification of members, size and number of meetings held annually as applied by Mohiuddin and Karbhari (2010) to evaluate the impact on the study variables.

1.1.2 Firm Characteristics

There are numerous firm characteristics (FC) showing different relationships across firms. Firm characteristics have been viewed as distinguishing features or attributes that could influence financial reporting (Eng & Mark, 2003). Sehu and Bello (2013) define firm characteristics as variables that may drive and affect the quality of financial coverage and collective admission of economic information. Sehu and Bello (2013) further notes that many firm characteristic varies systematically across firms in different sectors affecting financial reporting environment. Some studies have revealed that firm size, leverage and industry type characteristics significantly links to higher corporate discloser resulting into high quality of financial reporting (Aljifri, Alzarouni, & Tahir, 2014) while others involving profitability and liquidity remains inconclusive.

Existing literature show that firms engaged in earnings management reducing quality of disclosure are modest in size (Kinney & McDaniel, 1989) and are unprofitable (Defond & Jiambalvo, 1991) with declined growth rate while having high debt than their industry average (Callen et al., 2002; Chan et al., 2002). Wallace and Naser (1995) posit that corporate disclosures in financial reports vary positively with firm size while profitability is negatively related showing that firms with higher profitability tend to disclose insufficient information in financial statements. Alsaeed (2006) posit that there is a significant link of firm size to level of disclosure in annual reports and audited financial statements while acknowledging non-existence of evidence to link the association with audit committee attributes.

Glosten and Milgrom (1985) explain that firms with high quality financial information limit information asymmetry resulting to increased liquidity. Researchers have further identified firm size, leverage, board composition, institutional shareholding, profitability, liquidity and firm growth as some of firm specific characteristics that affects financial reporting quality (Kinney & McDaniel, 1989). Empirical evidence further indicate that firm size and debt level have insignificant relationship with financial reporting quality (Olowokure et al., 2015) and the results are further supported by those of Madawaki and Amran (2013). The study used size of the firm determined by total net assets, profitability measured by net income, liquidity measured by liquidity ratio and growth measured by increase in gross revenue.

1.1.3 Internal Control Framework

Organizations must have strong internal control framework to enhance financial reporting quality. Committee of Sponsoring Organization of Treadway Commission (COSO, 1992, 2004) describe internal control framework as data structure that organize and categorize an establishment's of internal controls consisting of practices and processes recognized to generate business value to reduce risk. Internal control is a process effected by an entity's board, management and personnel to deliver reasonable assurance of the achievement of an organization's objectives on effectiveness and efficiency of processes, reliability of financial reporting and compliance with laws (COSO, 2013, 2017; Rautenstrauch & Hunziker, 2011).

Firms disclose internal control framework components in annual reports and audited financial statements which provide confidence to financial reporting users. COSO (1992) contend that prospective stockholder has a justifiable interest with regard to the extent with which management's accountability for the firm's financial statements and effective internal control framework disclosures relating to control environment, risk assessment, control activities, information and communication and monitoring contributes to the foundation for sound internal control system. McMullen, Raghunandan and Rama (1996) in their study in examining annual reports of about 4154 companies (1989-1993) observe that internal control framework components' disclosure is adversely linked to poor financial reporting. Further, Ge and McVay (2005) posit that deficiencies in internal control have positive correlation with complexity of business while adversely related to the firm size and profitability.

Existing literature on internal control framework shows that researchers and rating agencies (Standard & Poor & CI-FAR index) have employed various methodologies including content analysis in measurement of internal control disclosure in annual reports (Leng & Ding, 2011) using internal control disclosure index (ICDI). The research adopted content analysis to establish the ICDI to measure disclosure quality. The selection of items to be used were guided by COSO framework which included statements about the management commitment to integrity and ethical values; management responsibility in identifying risks and analyzing their impacts on firm's objectives; deployment of control activities; effective communication of objective and responsibilities on internal controls; and evaluation and communication of control deficiencies for feedback. Mwongozo Code (2015) requires the board and management of State-owned Commercial Enterprises to disclose the efficiency of internal control in their annual reports. The study applied control environment, control activities, risk assessment, information and communication and monitoring as measures of internal control framework. This was consistent with the previous studies (Matari et al., 2017; Khlif & Samaha, 2016).

1.1.4 Financial Reporting Quality

The quality of financial reporting has remained a major concern among practitioner, regulators and other users of financial information as it is the principal means of communicating financial performance to stakeholders. However, researchers, practitioners and regulators are not in agreement to a perfect delineation of financial reporting quality (Pomeroy & Thomton, 2008). Martinez-Ferrero (2014) described financial reporting quality as the faithfulness of the information as reflected in the

financial reporting process. SOX (2002) require AC to converse the quality of financial reporting approaches and not their acceptability but fail to describe what constitute quality financial reporting. The International Accounting Standards Board (IASB, 2008) in its conceptual model characterized financial reporting quality to that which meets the objectives and subjective attributes of financial reporting. The study adopted the definition by Martinez-Ferrero (2014).

Beasley (1996) observe that financial reporting provides information about the management's stewardship, entity's assets, liabilities, equity, income and expenses, contributions and distributions to owners. IASB (2010) posit that relevance and faithful representation of financial information are the primary qualitative characteristics of financial statements and financial reporting quality is premised in providing information useful for decision making in investment, credit, and similar resource allocation. Different measurement models have been applied in prior literature to evaluate FRQ. Incremental and merit based models focused on earnings quality measurement and those fixated on definite components in annual reports and methods operationalizing qualitative characteristics have been applied (Bushman & Smith, 2001; Healey & Palepu, 2001; Lambert et al., 2007). The accrual and value relevance framework presupposes that managers utilize voluntary accretion to superintend income (Healy & Wahlen, 1999; Deschow et al., 1995) and emphasizes on information disclosed in annual reports to estimate the quality of FR.

Some scholars have argued that accrual models only use financial information while ignoring non-financial information from audited financial statements and annual reports (Vantendeloo & Vansstrealen, 2005). Further, it has been advanced that earning persistence, timeliness reporting, audit fees charged, disclosure quality and adoption and compliance with the international financial reporting standards' (IFRS) requirements actuate financial reporting quality (Biddle & Hillary, 2006; Lambert et al., 2007). These measures are regarded as attributes that influences financial reporting quality based on the literature reviewed in support of the study. The studies further reveal that financial reporting quality is still and remains the main source of external information to numerous financial reporting stakeholders.

Research on specific elements of financial reporting have concentrated on evaluation instruments estimating idiosyncrasy of separate components of the annual report extensively including financial and non-monetary information while techniques that operationalize subjective aspects target evaluation of the rank of various proportions of information concurrently to direct verdict functionality of monetary disclosure information. In spite of several studies in this area, previous studies have failed to provide the definite measures of financial reporting quality making it inconceivable to exhaustively appraise the quality of annual reports and audited financial statements (Meyer, 2007). The study adopted accrual model and instrument to estimate the quality of financial reporting and non-monetary disclosure in annual report in regard to breadth of conclusions adequacy exemplified in IASB (2008) Exposure Draft.

1.1.5 State-Owned Commercial Enterprises in Kenya

State agencies are incorporated bodies separate from mainstream civil service for driving public service delivery and viewed as part of State dealing with production, ownership, sale, provision, delivery or allocation of goods and services by and for the government or its citizens, whether national, regional or local or municipal (Barlow, Reohrich, Wright, 2010). Dooren (2006) assert that the legal aspect including financial and functional should be considered in defining public sector. However, it is argued that the only approach to broaden fiscal benefits is to elevate production levels while improving administrative element where government require to tap prospective workforce, equipment and monetary resources and applying entire feasible reserves for production and action (Guoming, 2007).

State-owned commercial enterprises (SOCEs) are organisations established singly or through majority shareholding by government and/or its institutions or a body incorporated through an Act of parliament to meet commercial objectives (OECD, 2005a,:36; Wamalwa, 2003; PTPR, 2013). SOCEs have continued to face challenges in form of weak internal control framework, ineffective audit committee and poor financial reporting leading to pilferages of their resources. This has been manifested through increased financial statements restatements (Ogoro & Simiyu, 2015), Public Investment Committee (PIC), Public Accounts Committee (PAC) and Auditor General's reports (2013-14, 2014-15, 2015-16) revealing malpractices in financial reporting. In addition, scandals have been witnessed in institutions such as Mumias Sugar and Kenya Pipeline resulting to questions and criticisms on weaknesses of internal control framework,

ineffective audit committees incapable of providing strong oversight on governance, control and quality financial reports.

The study centers on State-owned Commercial Enterprises due to their significant role in economic development in the country. The Institute of Certified Public Accountants of Kenya (ICPAK) in conjunction with the Public Sector Accounting Standards Board (PSAB) introduced financial reporting award (FiRE) in 2002 as a means of improving FRQ in the public sector but this has not resulted into a positive outcome. The SOCEs have been also observed not to reinforce compliance while at the same time manipulating financial information disclosures leading to inaccurate financial statements. Further, issues of governance, accountability, efficiency and effectiveness in utilization of public resources have been a major concern to the public and it has been enhanced through the constitution, Public Finance Management Act 2012 and published audit committee guidelines (Kenya Gazette, 2016) for establishment of the public sector audit committees.

Despite the governance structures in conjunction with the establishment of AC and annual examination by the Office of the Auditor General no improvement have been witnessed on the financial reporting quality in these organisations leading to numerous questions on integrity on financial reports presented. Prior studies have in the past concentrated on listed companies and private sector entities and therefore, making State-owned Commercial Enterprises to be selected for this study.

1.2 Research Problem

Financial reporting quality has attracted much attention from regulators, shareholders, researchers, investors and practitioners and questions on financial reporting quality,

effectiveness of internal control framework and other governance structures have been raised and evidence has linked quality of financial reporting with audit committee attributes (ACA), firm characteristics (FC) and internal control framework (ICF) in the public listed firms (Warren & Reeve, 2004; Bedard & Gendron, 2010). This has not been reflected in the State-owned commercial enterprises where poor quality of financial reports is witnessed due to specific firm characteristics and weak internal control framework. Francois and Kyle (2011), Schoar (2003) and Bamber et al, (2010) posit that firm characteristics, internal control framework weaknesses and audit committee size as an attribute impact positively financial reporting quality while audit committee independence shows no significant positive relationship with FRQ as confirmed by Sehu and Bello (2013).

Quality financial reporting is envisaged in the state-owned commercial enterprises (SOCEs) due to the existence of audit committee in these organisations. Supported by agency theory perspective, audit committee independence and size and firm size and profitability have positive and negative impact respectively on financial reporting quality (Kalbers & Fogarty 1998; Wallace & Naser 1995). SOCEs have utilized accounting standards in selecting accounting policies and judgments in financial reporting procedures and processes and continued to operate in weak control environment that have impacted on their FRQ. However, FRQ in SOCEs hold out unproven contrary to other similar entities in the private sector. This has led to inaccurate financial reporting, imprudent application of resources and poor corporate governance as evidenced by Public Accounts and Public Investment Committees' reports presented in parliament (Parliamentary Hansard) questioning accountability, information integrity, role of AC

and internal controls over financial reporting process. Further, SOCEs have continued to receive adverse and qualified audit opinions issued by the Auditor General. Despite existing legal instruments, circulars from the National Treasury and code of governance for state corporations and International Financial Reporting Standards (IFRS) requiring effective internal control framework and audit committee, very limited progress has been experienced (Circular no. 16 of 2005; PFMA, 2012; PFM Regulations, 2015 & MCGSC, 2015). This call for an assessment of the magnitude to which annual reports and audited financial statements of SOCEs maintain relevance and reliability to their stakeholders as presented.

Different statistical techniques have been applied by different researchers to test for associations amongst AC attributes and FRQ, specific firm characteristic and FRQ and internal control over financial reporting (Aljifri et al 2014, Francis, 2011, Felo et al 2003, Kalbers & Fogarty, 1993). The studies focused on testing impact of individual variable on financial reporting quality without probing the impact among the variables themselves. An empirical analysis of data of Nigeria's listed companies on the relationship among firm characteristics and financial reporting quality fail to reveal somewhat significant relationship (Olowokure, Tanko & Nyor, 2016). This methodological challenge leads to a study gap on further investigation on the relationship among the variables.

Investigations by local researchers (Barako, 2007, Outa, 2011) have focused on quality of financial reporting and preparation of annual reports in publicly listed companies and have not been able to establish the cause of financial reporting quality. Omoro (2014) in

his research on the link among the demographic diversity of top management teams and financial reporting quality finds a positive relationship in commercial state corporations. Further, Ogoro and Simiyu (2015) in their investigation on the parallel between attributes of audit committee and its effectiveness posit that multiple directorships reduce financial statements' restatements in state corporations. Most of empirical studies in regard to ramification of audit committee attributes, firm characteristics and internal control framework against financial reporting quality were based on data and sample from developed economies while studies on the SOCEs context are very scanty, hence, a research gap that requires probing by questioning the audit committee attribute, firm characteristics, internal control framework and financial reporting quality relationships. This is supported by ROSC (2010) study which affirmed inadequacy of studies on state-owned commercial enterprises but acknowledged their significance contribution to the public good and economic development. The research therefore, attempted to address the study question: what are the effects of audit committee attributes, firm characteristics and internal control framework on FRQ of SOCEs in Kenya?

1.3 Research Objectives

The study intended to establish the linkage amongst audit committee attributes, firm characteristics, internal control framework and FRQ of SOCEs. The specific objectives were to:

i. Determine the relationship between AC attributes and FRQ of SOCEs;
ii. Establish the effect of firm characteristics on the relationship between AC attributes and FRQ of SOCE;

iii. Determine the effect of internal control framework on the relationship between AC attributes and FRQ of the SOCEs; and

iv. Determine the joint effect of AC attributes, firm characteristics and internal control framework on FRQ of SOCEs.

1.4 Value of the Study

The study makes contributions to the agency theory by conducting empirical analysis on the relationships among audit committee attributes, firm characteristics, internal control framework and FRQ. This would provide in support to determine dissensions in various theories that record contrasting premise on the consequences of audit committee attributes, firm characteristics and internal control framework against financial reporting quality such as Stakeholders, Agency, Power, Actor-Network and Institutional theories.

The exploration reinforces existing empirical studies regarding FRQ. The preeminent input of the research realised is that audit committee attributes, firm characteristics, internal control framework jointly predicts financial reporting quality. This provided more insight on the results of the previous studies which provided inconsistent results.

The study results make contributions to practice by providing an opportunity to those entrusted with governance to ensure that members with appropriate qualifications, competence, skill and expertise and independent are appointed to audit committees to deliver on the oversight roles. This shall improve governance structures leading to improved financial reporting quality.

In addition, the research findings contribute to policy by facilitating standards setting in financial reporting and accounting by providing an opportunity to the Public Sector

Accounting Standards Board to make considerations when reviewing and developing new accounting and financial reporting standards for the public institutions which incorporate the interests of financial reporting stakeholders across the public sector institutions.

Thirdly, the study makes contribution by strengthening financial reporting quality in state-owned institutions. This shall enable regulators including the Institute of Certified Public Accountants of Kenya (ICPAK) to develop the financial reporting quality framework geared towards improving public finance management, assurance, governance and compliance to mirror those for public listed companies as well as other private sector firms.

Finally, the study makes contributions to future research scholars and academicians by examining the relationships and linkage among audit committee attributes, firm characteristics, internal control framework and financial reporting quality. The research findings provide an opportunity for further research on the variables used locally and internationally.

1.5 Organisation of the Thesis

This thesis has been segregated into six parts comprising of introduction; literature review; research methodology; descriptive data analysis and results; hypothesis examination findings and discussions; summary, conclusions and recommendations respectively. Chapter one provide brief introduction of the four concepts of the research comprising of Audit Committee Attributes, Firm Characteristics, Internal Control Framework and FRQ. Further, contextual discourse of the SOCEs is presented informing

development of the research problem and study objectives. The values and justification for research are provided at the culmination of the chapter.

In chapter two, theories and empirical literature supporting the study are discussed and analyzed. The research explored four theories which consisted of the Agency Theory (Jensen & Meckling, 1976), Institutional Theory (Max Weber, 19th Century; Scott, 2001, 2004), the Power Theory (Max Weber, 1947) and Actor-Network Theory developed by French sociologists and law in 1992. The empirical literature is explored leading to a summary of empirical studies and research gaps singled out. Further, the section leads the way for the conceptual framework of the study and hypotheses to be tested in the research.

Chapter three provide research methodologies adopted in the research consisting of research philosophy, design, study population, data collection, and various diagnostic assessments of statistical assumptions to be undertaken, operationalization and measurement of variables and data analyses. Chapter four covers descriptive statistics analysis and outcome (minimum, maximum, mean, median and standard deviation) and analysis of the correlation among research variables.

Chapter five deals with hypothesis testing and findings where tests conducted on the four hypotheses including sub-hypotheses and respective results are presented as well as discussion of the research findings. The hypotheses tested the linkage among AC Attributes and FRQ; moderating effect of Firm Characteristics on the interdependence amongst AC Attributes and FRQ; the intervening effect of Internal Control Framework on the interconnection amongst AC Attributes and FRQ; and combined results of AC

Attributes, FC and Internal Control Framework over Financial Reporting Quality. Chapter six provides the summary, conclusions, contributions of the study to the body of knowledge, theories and policies, impediments of the study and recommendations for ensuing research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This phase illustrates factual material on audit committee attributes, firm characteristics, internal control framework and FRQ of SOCEs. Theoretical and empirical literatures on variables were reviewed and emerging research gaps identified while informing the development of hypotheses to be examined and analyzed.

2.2 Theoretical Literature Review

Various studies on audit committee attributes (ACA) have used agency theory as their main theory of study in evaluating the attributes of audit committee and the study introduced other theories to explain the relationship among audit committee attributes internal control framework (ICF), firm characteristics (FC) and financial reporting quality (FRQ) consisting of institutional, actor-network and power theories. The research is anchored on the agency theory.

2.2.1 Agency Theory

Agency conflicts originate from severance of ownership and control of corporations which presents a quintessential background for the operation of agency theory. The theory was first propagated by Stephen Rose and Barry Mitnick in 1972. Ross (1972) contends that agency problems are common in community, not purely as a muddle in the presumption of the corporation. Jensen and Meckling (1976) defined agency association as an agreement through which one person (principal) engages another (the agent) to accomplish some solutions on his/her behalf.

Information asymmetry is viewed to be associated with principal's and agents' economic inducements to capitalize on different information systems to scale down the firm expenses (Jensen & Meckling, 1976; Fama & Jensen, 1983). Mohiuddin and Karbhari (2010) observe that audit committee safeguards stakeholders' returns by its equitable and impartial opinions and discernment. Audit committee strengthens information quality through monitoring of executive and auditors hence decreasing agency costs (Bedard & Gendron, 2010). The reduction of agency problems through separation of control and ownership provides the ground for the promotion of good corporate governance mechanisms, strong internal controls and audit committee enhancing accurate financial reporting. Chen et al. (2008) considered non-US companies dealing in stock in the US market and assert that functional audit committee could sort out agency difficulties of foreign firms no matter the corporate governance representation adopted by firm's place of origin. Dey (2008) claim that the extent and severity of agency complication is rarely in companies where audit committee is effectual based on conformation and expertise resulting in financial reporting quality.

Greiling (2006) argue that agency theory presume that players are driven alongside intelligent egocentric while agents utilize gaps in agreements to their benefit and concludes that agency challenge emerges besides a conflict of interest notwithstanding agent's confidential acquisition of data and agents' gravitation in utilization of their knowledge to their benefits. Jacobides and Croson (2001) posit that key dispute is to gain fully from utilizing reasonable advantage to attain benefit of the shared agency owing to disproportionateness of facts, invisible individualities materialize prior to validation of

agreement and that an agent has privileged information, capability and skills which may compromise information quality.

While Audit Quality Forum, (AQF, 2005) records that agency theory is a valuable economic theory of responsibility, it criticizes its postulation that an agent is not dependable and if he can benefit with the loss of an employer, at that moment, he will. The presupposition overlooks possibility that certain surrogates are presumptively dependable laboring in the interest of the employer whether or not their execution is censored and productivity estimated. Lane et al. (1998) suggest that expectations of economic theory are uncorroborated in instances where executive curiosities are in dissension with those of shareholders. In addition, prior research using agency theory in examining the association of the structure of AC with various agency costs has generated blended outcome (Pincus et al., 1989; Bradbury, 1990) and have not resulted into systematic evaluation of actions or potency of such panels as confirmed by findings of Kalbers & Fogarty, 1993. The theory helped to conceptualize the relationships amongst audit committee attributes, firm characteristics and internal control framework and reducing information asymmetry while revamping the quality of information in financial reporting chain.

2.2.2 Institutional Theory

Max Weber advanced the institutional theory in the early 19th century while the contemporary institutional theory is associated with Scott (2001, 2004) who placed emphasis on social structures dealing with rules, norms and routines and how they are established as authoritative guidelines for social behavior. While Schneider (1984)

suggests that organization is premeditated and purposes to meet social expectations, Goodwin (2004) argue that organization's internal system is often intricate and problematic to identify and could accept a second set to the subject of extraneous validity having authority to impose practices on secondary units or specify conditions under which to remain eligible for sustained funding (Geiger & Ittner, 1996). Policy-making formation developing into figurative arrays of conventionality in conjunction with societal engagements while internal processes supported by observable structures accomplish real work with appropriate structures avoiding deep investigations by external parties (Meyer & Rowan, 1977).

While DiMaggio and Powell (1983) contend that institutions are dependent on pronouncements and regulations to which they observe, Meyer and Rowan (1977) assert that rules and regulations do not necessarily guarantee efficient operations. DiMaggio and Powell further suggest that institutional forces would make organisations to accept comparable physiognomies to organize themselves in similar manner to organisations in similar environments and they identified three types of isomorphism where coerciveness is reflected through increased pressure from stakeholders including regulators (CMA, NSE, SEC, NYSE, CBK, PFM Act) for organisations to establish audit committees, while mimetic occurs when change is initiated internally when it is perceived that AC will grant business management structures leading to FRQ and normative is viewed to emanate from individuals through their professional bodies (ICPAK, IIA) nudging upon establishment of audit committee to improve accountability and corporate governance structures in organisations.

The institutional theory assert that AC roles' strength is additionally credited to inner elements such as agenda discussed relative to foreign aspects including company attribute (Kalbers & Fogarty, 1998). As a result, scientists have claimed that known information is of restricted utilization in attainment of the authenticity of audit committee being the desired institutional management instruments and its efficacy (Kalbers & Fogarty, 1998). They further adopted both agency and institutional theories to interrogate AC attributes and contend that the application of agency theory unattended incapable of comprehending approximate severity of the AC as a corporate oversight system. AC is viewed as corporate control mechanisms and institutional and agency theories emphasize the need for strong structures to eliminate information asymmetry.

The institutional theories indicate that institutions with applicable architecture in place ward off in-depth scrutiny of their intervening systems by extrinsic affiliations (Orton & Weick, 1990). The conceptual framework of reference have transpired to enforcement in the option of method of accounting (Mezias, 1990), application of accountancy by the publicly owned corporations and acquisition of inventive automation (King et al., 1994). Zucker (1988) assert that external expectations on good business management reflect alive in institutional conditions serving as a gateway in implementation of institutional theory.

Numerous studies supported by institutional theory indicate that internal control adopted and implemented to safeguard resource deployment in public sector are limitedly used in organizational hierarchy (Ansari & Euske, 1987; Pettersen, 1995) or assume the representational role of legitimizing the organization to donor funding. It is argued that

when more pressures from donors and the public for improving financial management control are forthcoming management of specific organizations are expected to pursue implementation of internal control in organizational hierarchy relatively and forcefully hence improving quality of financial reporting. The institutional theory helps to envision the interaction of audit committee attributes and firm characteristics with internal control framework. Kamal (2019) asset that institutional theory lack independent programs and only advantage self-defining capability atop domination. Further, Greenwood et al. (2014) contend that the theory has off-tracked the vision of professing learning a formation with immense crisp on parallelism and resemblance.

2.2.3 Power Theory

Max Weber invented the power theory in 1947 and delineated power as the capability to serve strongly even in contradiction of alternatives. Power habitually is construed as an unspoken component in the domination of policy-making reaction (Pfeffer, 1982) and therefore, segments of systems, such as audit committee must seize influence to exercise their obligations. The theory suggests that audit committee is likely to experience dominance on and be affected by, exercise of control by different stakeholders (Clegg, 1989; Hardy, 1996). Audit committee is viewed to function effectively when it has qualified members to assume its mandate.

Various scholars have consensus that sanctionary power interpreted as restraint atop capital (remunerate and force); authority above knowledge together with contents (information); intimate peculiarity (specialist and antecedent); and explicit sanction (permitted) (French & Raven, 1959; Raven, 1974; Kalbers & Fogarty, 1993; Mintzberg,

1983) influences audit committee roles. Legitimate power is seen to emanate from enabling legal instruments establishing AC to make good surveillance over internal controls and FR chain and seen that audit committee authority is driven from the performance of responsibilities mandated by law and regulations. Resolutions done by audit committees are intelligently dominated through appendage capacity in accessing data and its utilization a way most appropriately to achieve its intended purpose (information power). Bedard and Chi (1993) argue that experts and non-experts differ in the decision they make and behavior in problem solving. Power theory explains how audit committee attributes relate with internal controls and financial reporting chain.

Referent power designates audit committee with charisma competent of controlling others likely to diversify in augmenting financial reporting process and adds to effect of attributes to audit committee. Kalbers and Fogarty (1993) in their study classifies six forms of power into organizational influence (lawful, penalty and information) and idiosyncratic potency (expert, referent and inclined) and concludes that legal, penned jurisdiction and evident backing by organization as well as diligence as an attribute plays important roles in audit committee oversight.

2.2.4 Actor-Network Theory

Spira (1999) notes that the proposition fundamental to the actor-network theory (ANT) was originally advanced through propositions of category of sociologists and Law (1992) who maintained that ANT was a semblance of systemic examination apprehensive of nitty-gritty of influence. This proposition submits that the people, firms, representatives and procedures inhibit consequences engendered in designed federation of diversified

information (Law, 1992). Certainly, networks are viewed infrequently and invariably noticeable within communal synergies and allow structure prospectively characterized along with a sole performer (Spira 1999). While Callon (1986) observe depiction of the network by a solitary player as a translation process, Ezzamel (1994: 218) describes transferral being a proceeding uninterrupted where a firm register supplemental businesses falsifying affiliations during circumstances causing organizational tussles together with difference of opinions and argue that translation process expressly touch on how operatives revolutionize experience into wealth and wealth through networks of ascendancy desiring to shape association in conjunction with affiliations manipulating dissension while inaugurating attentiveness.

ANT center of attention continuously originate from the ability as well as dominance exclusively along with networks. Researchers argue that ANT advance an affluent impression relatively to other abstract foundations utilized in audit committee empirical studies since it recognizes vulnerability and fragmentation of networks and empowers analysts to evaluate multiplex linkages among audit committee partakers (Spira, 1999). Ezzamel (1994) notes that researches that have applied and utilized ANT as a conceptual model in exploring accounting matters have been discriminative. Spira (1999) used ANT to provide a feasible description for the rapid increment in acceptance of AC by investigating roles of the AC across anecdotes of AC stakeholders where the research assessed the sacramental accomplishment of AC congregations and concluded that corresponding achievements benefits a network capital and eventually demonstrating firm's legality through comforting resources anticipated by validation of the scrutiny for soaring excellence of company boards. Due to the secretiveness matters linked to the

direct surveillance of a player in any network, researches that have applied ANT in examining audit committee attributes adopted the perception based methodology resulting to academic criticism (Ezzamel, 1994).

2.3 Empirical Literature Review

The segment critiques verifiable studies affiliated to the interconnection amidst AC attributes, IC framework, firm characteristics and quality of financial reporting with the main objective of establishing their effects on FRQ of SOCEs.

2.3.1 Interdependence between Audit Committee Attributes and Financial Reporting Quality

Existing findings links AC attributes with FRQ in organisations. Beasley et. al. (2000) investigated the association between attributes of AC and FRQ. The study used inquiry feedback gathered through response by chairman of the AC, liberated director and chief audit executive of the Australian public listed firms and found no conclusive relations amidst AC attributes and FRQ. In the United States of America (USA), Abbott and Parker (2000) examined relationship amongst independent AC and financial reporting quality in 78 firms under Security Exchange Commission (SEC) regulations and 78 non-sanctioned companies based on the Blue Ribbon Committee (BRC, 1999) recommendations and observed that corporations with independent audit committee credibly tweak the FRQ.

In 1998 the New York Securities Exchange (NYSE) and National Association of Security Dealers (NASD) jointly established BRC on AC attributes. BRC (1999) report indicates that independent AC possessing monetary knowledge improves FRQ. Audit committee

may be ineffective when it does not have the right people with right qualifications and expertise to perform its role while members reflecting independence and competence in their operations (Sabia & Goodfellow, 2005; Abbott et al. 2003). Kalbers (1992a, 1992b) in his survey from randomly selected American companies on the consciousness as regards internal and external auditors with reference to audit committee's attributes observed that member expertise, independence and AC size had momentous influence on FR.

Using 114 internal auditors of public companies in the USA, Raghunandan et al. (2001) did a study on the connection among audit committee attributes and AC Interlinkages in addition to internal auditing. The study finds that AC with at minimum a member having expertise in accounting and/or finance qualification is expected to be effective by holding meetings with chief audit executive while providing private access and reviewing internal audit reports and concludes that institutions with challenges in FR are barely having members with accounting qualification. However, Isakulchai (2015) affirm the correlation amidst AC attributes and quality of audit but the inquiry fails to reveal effect of internal control elements on FRQ.

Song and Windram (2000) examined the AC attributes in the United Kingdom on their role of overseeing financial reporting and used binary logit regression model to analyze financial reporting for the period between 1991 and 2000 and found that board and committee independence reduces financial reporting problems while corporations with reporting difficulties had fewer common audit committee meetings. Beasley et al. (2000) in their study on possible fraud in technology, financial services and health-care

industries observed no correlation of AC size with FRQ but contend that organizations with AC having more physical contacts experience less qualified reports.

2.3.2 Relationships among Audit Committee Attributes, Firm Characteristics and Financial Reporting Quality

Olowokure et al. (2015) in their inquiry utilized multiple regressions in probing association of characteristics with financial reporting quality on listed deposit taking banks in Nigeria for a period between 2005 and 2014. The study finds insignificant connection of size of the firm, leverage and FRQ. Empirical evidence shows that profitability as a measure of firm characteristics influence financial reporting value and that companies with frequent AC meetings reduced financial reporting challenges (Alsaeed, 2006).

Alsaeed (2006) scrutinized the interrelation of firm discrete attribute with declaration in Saudi Arabia using multiple regression analysis for 40 firms' annual reports in 2003. The study noted a significant affirmative relationship amongst the firm size and extent of disclosure in financial reports and no evidence of the association with audit committee attributes. Furthermore, Aljifri et al. (2014) confirm that firm size, listing status and industry type have significant association with financial revelation. Equally, level of firm profitability and size are seen to influence manipulation of accounting accruals (Klein, 2002b; Yang & Krishnan, 2005; Davidson, Stewart & Kent, 2005).

Madawaki and Amran (2013) investigated the association of AC attributes with FRQ and firm size in Nigerian companies. While the study used archival data and adopted Dechew and Dichev (2002)'s model and finds a positive link between AC with independent chair and accounting or financial knowledge and financial reporting quality, Martinez-Ferrero (2014) assert that firm characteristics have effect on financial reporting quality but no clear link with AC attributes.

2.3.3 Relationships among Audit Committee Attributes, Internal Control Framework and Financial Reporting Quality

While the board is in charge of corporation's IC and its effectiveness, AC provides oversight on Internal Control framework (ICF) and assurance on its effectiveness. Although there is inadequate empirical literature on the contributing elements of IC quality prior to Sarbanes-Oxley Act, Krishnan (2005) in his empirical investigation of AC attributes and IC in listed firms in the NYSE indicate that AC independence and financial expertise is significantly linked to strong internal controls and financial reporting quality. Hunziker (2013) explored internal control disclosures within a sample of 91 Swiss listed non-financial firms through advancement of an IC disclosure index and conclude that size of AC and firm liquidity importantly relate to the quality financial reporting.

Ge and McVay (2005) examined 261 firms that revealed minimal material flaw in IC in compliance with Sarbanes Oxley Act (2002) in the USA. The study found that disclosure of material weakness related affirmatively to business aggregation and with contradicting result with firm size. Zhou et al. (2007) investigated relationship amongst AC attribute of

independence and IC weakness after the enactment of Sarbanes-Oxley Act (2002). They used conditional logit analysis and found that organizations with AC members with less financial and accounting expertise experienced internal control weakness and poor financial reporting quality but fails to link firm characteristics with FRQ.

Doyle, Ge and McVay (2007) surveyed the relationship between accrual quality and internal control using 705 businesses listed in the NYSE for a period between 2002 and 2005. The study used regression analysis and found out that connection of weak internal controls and low accrual quality is affected by ineffective disclosure of internal controls. The study further indicated that size of the firm was significantly related to internal control revelations but failed to support any evidence of association with AC attributes. Doyle and McVay (2007a) tested causalities of deficiencies in IC for 779 organizations for a period of four years and found that smaller firms have serious internal control weaknesses while young growth organizations disclose more internal control weaknesses improving their quality of financial reporting. They further argued that sizeable businesses may experience supplemental structured financial reporting proceeding and course of action which enhance segregation of duties.

While Eng and Mak (2003) analyzed the link amongst firm specific characteristics with discretionary disclosures and assert that lessened organizational and powerful government takeover are related to improved voluntary disclosure, Hunziker (2013) argue that firm specific characteristics resulting from agency theory expressly explain the inconsistency in the level of voluntary disclosure on controls. Further, Doyle et al (2007) suggest that internal control weakness is largely linked to poorly estimated accruals not

realised as cash and the study is limited to private sector. McMullen and Raghunandan (1996) claim that companies experiencing FR problems did not have audit committee members with accounting qualification while those with quality financial reporting had a CPA in their committee.

2.3.4 Relationships among Audit Committee Attributes, Firm Characteristics, Internal Control Framework and Financial Reporting Quality

McMullen (1996) investigated if presence of AC in firms was related with FRQ among firms in the USA. The research found a significant association of reliable FRQ with existence of an AC. The study further reveals that size of the firm and profitability is firmly associated with audit committee attributes but negatively related to material weakness disclosure of internal control. DeZoort and Salterio (2001) in their study analyzed the influence of institutional management experience and financial reporting and audit committee expertise using 68 AC members of listed companies at the NYSE. The study found that audit committee member with financial and auditing knowledge is more likely to understand the disclosure of material internal control weakness.

Previous work has only focused on the relationship that exists among audit committee attributes, firm characteristics, international control framework and financial reporting quality in the non-public sector but not publicly owned. Bronson et al. (2006) examined the relationship between firm characteristics and voluntary disclosure of management reports on internal controls in annual reports among 397 midsized firms for the year 1998 and assert that probability of voluntary disclosure is high for large firms with audit committee that frequently meet. Kusnadi et al (2015) hypothesize that FRQ is greater if

AC has diversified expertise in accounting, finance and/or supervisory but fails to link it with firm specific characteristics.

Despite Doyle, Ge and McVay (2007) suggesting that revelation of IC frailty significantly associated with the complexity of firms and risk control drivers but no evidence to relate them with FRQ. While investigating the influence of AC attributes on IC system of commercial banks in Yemen, Al-Matari et al. (2017) suggests that audit committee which often met reduced material restatements leading to financial reporting quality but the research failed to show insignificant relationship with bank size. Further, Khlif and Samaha (2016) posit that AC activity has consequential conclusive impact on IC quality, firm profitability and size in private companies but not public sector firms in Egypt.

2.4 Summary of Prior Studies and Research Gaps

Existing empirical literature reviewed and observed evidence along with theoretical literature review provides blended outcomes on the relationships among audit committee attributes, firm characteristics, IC framework and FRQ. Several studies carried out focused on the public listed and private companies while giving a wide bath on the public sector entities (Barako, 2007; McFie, 2009; Bamber et al., 2010; Outa, 2011; Ongoro & Simiyu, 2015). This has demonstrated a contextual gap that necessitates the research on the state-owned commercial enterprises. Most of the studies reviewed have assessed the relationships among two or three variables which have also produced mixed findings.

There are limited preceding research about the attributes of AC, internal control framework and FRQ in the public sector in various jurisdictions with majority concentration on public listed companies. A number of inquiries carried out in the state-owned institutions focused on the corporate governance rather than the relationship among the AC attributes, internal control and FRQ, hence the contextual research gap. Empirical review also reveals that majority of research designs adopted by different researchers varies with the nature of dataset expected.

The studies reviewed were silent on the appropriate period for these kinds of studies (time series data). Most of the studies have used various audit committee characteristics without linking to the elements of IC framework and fail to determine which one impact significantly on FRQ in the public sector. From the empirical review, it is evident that there are methodological gaps. Hardly any literature reviewed have demonstrated the link between audit committee independence, size, qualification together with the total meetings conducted in a year with firm size, liquidity, growth and profitability of the firm as main indicators of firm characteristics and their impacts on financial reporting quality. None of the research analyzed has given the best proxy for measuring financial reporting quality leaving the knowledge gap of how clearly financial reporting quality may be determined for comparison purposes. This study was intended to fill the knowledge gaps, contextual and methodological gaps by using four attributes of AC (size, independence, qualification and meetings conducted yearly) alongside three proxies for determining financial reporting quality (accrual quality, qualitative characteristics and timeliness reporting). Table 2.1 provides succinct of empirical literature reviewed, findings, inconsistencies identified and how the current study has addressed the noted void.

Table 2.1: Summary of Research Gaps

Researcher (s)	Focus of the Research	Study Model/Variables	Findings	Research Gap	How current research addresses identified deficiencies
Bardhan et al. (2015)	Study focuses on the link family business characteristics and quality of IC over FR, relative to non-family businesses.	Study uses material weaknesses, firm age, losses, bankruptcy risk, mergers & acquisitions, auditor resignation, expert, specialist & board independence. It uses logistic regression model.	Research reveal that more disclosure of significant deficiency in their IC over FR than non-family businesses.	The study is narrowed to family businesses and only introduced audit and board variables which don't reveal impact of firm characteristics on IC over FR quality.	The study has adopted Correlational research design with data collected for 11 years. In addition, the research introduced audit committee attributes that was tested to establish their effect on financial reporting quality.
Ogoro & Simiyu (2015)	The study investigates the relationship between audit committee characteristics and its effectiveness in reducing financial	The researchers uses AC indicators of size, meeting frequency, financial expertise, tenure & multiple directorships in 177 State Corporations	Results show that multiple directorship and tenure were significantly in reducing the number of	The study applies multiple directorships and tenure as audit committee attributes revealing impact on financial restatements. For consistency in	Audit committee attributes of size, independence, frequency of meetings & qualification were used and mediated

	restatements in State Corporations in Kenya.	using logistical regression model and agency theory.	financial statements restatements.	results, a further study incorporating additional audit committee attributes and financial characteristics can be done on State-owned enterprise.	with firm characteristics to test the influence on FRQ.
Kusnadi et al. (2015)	Study examines impact of AC elements on FRQ for Singaporean listed firms.	The study uses AC independence and expertise as the characteristics and accrual quality as the proxy for FRQ.	The study finds out that FRQ is greater if AC has diversified prowess in accounting, finance and/or supervisory.	The research focuses on listed companies and uses independence and expertise in testing for the impact of AC attribute on FRQ. Additional audit committee attributes may be introduced and a further research conducted.	The current study introduced additional audit committee attributes indicators including size; independence; meetings attended in the year and internal control framework elements.
Omoro (2014)	Study examines impact of diversity of top management teams, corporate voluntary revelations,	It uses correlation and longitudinal research design to assess the relationship among the variables.	Study affirms positive relationship among age, tenure, functional diversity in top management	The study uses corporate voluntary disclosures, top management team diversity and discretional accounting choices to test for their influence on	Current study introduced audit committee attributes, firm characteristics and internal control framework variables

	voluntary accounting choices and FRQ quality in State Corporations.		teams with fundamental characteristics of accounting information	FRQ in State Corporations.	in determining their effect on FRQ in SOCESs.
Jennifer (2014)	The study tests the ramifications of FRQ on business accomplishments.	The study uses earnings quality, conservatism and accruals quality as variables.	The study reveals that there is an affirmative effect of financial reporting quality on performance of the firms.	Study uses accrual and earnings quality for financial performance measure, a further study may be done using fundamental characteristics and timeliness as financial reporting quality measure.	The current study employed four qualitative fundamental measures of financial quality on a five point scale on the annual reports of the State-owned Commercial Enterprises.
Hunziker (2013)	Study examines relation to the extent of discretionary revelation specifically on IC and agency costs a firm incurs.	Study uses internal control disclosure index to analyze internal control elements disclosed in the annual reports.	Results reveal that firm specific characteristics resulting from agency theory explain inconsistency to in the extent	The study only used annual reports for one financial year to carry out analysis. For more reliable results, a longitudinal study may be carried out for a longer period of time.	The study tested the consequences of AC attributes on FRQ. Attributes of internal control framework were analyzed from annual reports for the period between 2008

			discretionary declaration on IC.		and 2018.
Outa (2011)	Examining the Impact of affectation IFRSs and its effects on FRQ in capital markets.	Study undertake critical literature review and analyze empirical studies on IFRS adoption and impact on financial reporting process	The results indicate that studies reviewed didn't consider firm specific characteristics effects on financial reporting quality and IFRS.	Studies used regression models which didn't allow the use of linearity, multicollinearity, normality and heteroscedasticity to test for robustness of regression model.	The study also employed diagnostic tests including multicollinearity, homoscedasticity and normality tests.
Bedard & Gendron (2010)	The study analyses literature on audit committee to evaluate the extent to which audit committee strengthen financial reporting.	Analysis of literature from a meta-perspective and results reported in studies probing relationship amongst certain audit committee attributes.	Study finds positive association between audit committee attributes of independence, competence, AC_SIZ & frequency of AC_MEET and measures of AC attributes.	Study is limited to reviewing about 103 literatures on audit committee attributes published between 1994 & 2008 & fails to reveal how audit committee attributes, firm characteristics and declaration of IC elements affect FR quality in the public sector.	The study introduced firm characteristics and internal control framework attributes together with audit committee attributes indicators in testing their impacts on FRQ.

Doyle et al., (2007)	The study investigated the relationship between accrual quality and internal controls using 705 firms for a period between 2002 and 2005.	The study adopts Dechow and Dichev (2002) model as modified in McNichols (2002) and Francis et al. (2005) as the main measure of accruals quality.	The study finds that IC deficiencies are largely linked to faultily approximated accretion unrealized as cash.	Study is limited to private sector and doesn't explain the effect that accrual quality and internal controls have on the FRQ.	Current research applied accrual quality as a measure of financial reporting quality while incorporating internal control framework attributes, firm characteristics and audit committee attributes to establish their effect on FRQ.
Barako (2007)	Study examines components connected with discretionary declaration in annual reports.	It uses longitudinal analysis of discretionary declaration practices in annual reports by firms listed at NSE.	Reveals that disclosures of information are influenced by corporate governance attributes, ownership structure & characteristics.	Study is limited to firms listed at the NSE and uses corporate governance attributes and corporate ownership which fails to reveal impact they have on financial reporting quality.	Current study used multistep regression analysis model and include audit committee attributes, firm characteristics, and internal control framework indicators to test for impact on FRQ.
Felo et al. (2003)	The study examines interrelations of AC	The study reveals that AC members with	The study uses audit committee	Research uses limited number of audit	The study introduced additional audit

	characteristics with financial reporting quality.	accounting or financial expertise have affirmative association with FRQ.	independence, expertise and size in determining its relationship with financial reporting quality.	committee attributes and fails to incorporate elements of internal control framework and firm characteristics to examine their extant relationship with FRQ.	committee attributes while incorporating internal control framework attributes and firm characteristics elements to establish the link with FRQ.
Krishnamoorthy (2002)	The study examines the effect independence of the auditor arising from roles and accountabilities of AC; dimensions of FRQ; and relaying of information and Interlinkages among auditor and AC.	The study employs survey methodology to address various research questions.	The study suggests that although AC has influence challenge executive on antagonistic matters, it is not very effectual in assisting in resolving FR disagreements.	The research focuses on the independence of the external auditor but do not consider influence of the AC effectiveness determinants on FRQ.	The current research addressed the gap by introducing AC attributes and IC framework components in establishing the impact it has on the financial reporting quality.

Source: Researcher, 2020

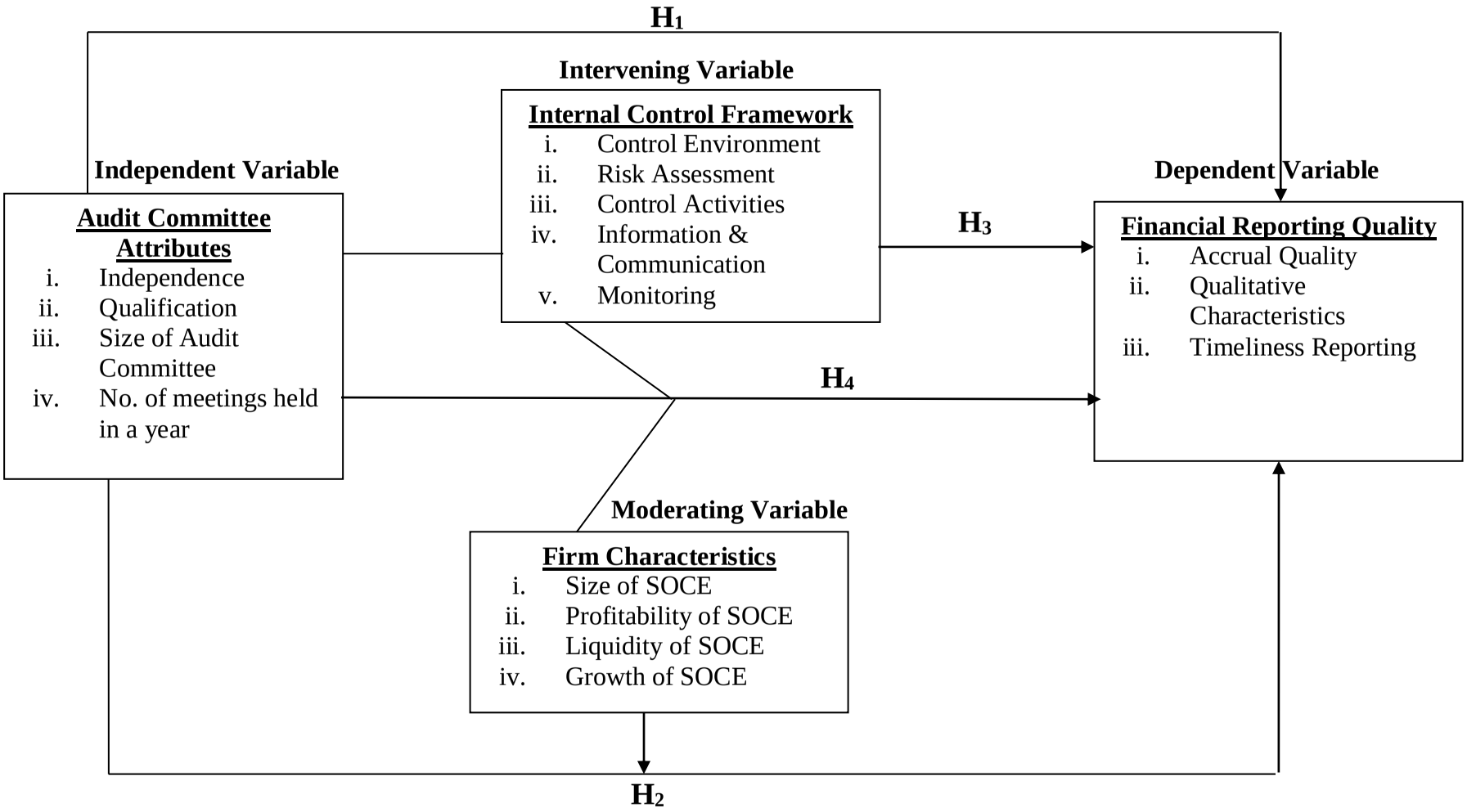
2.5 The Conceptual Framework

The theoretical model presented in Figure 2.1 shows the association among audit committee attributes, firm characteristics, internal control framework and financial reporting quality. The model endeavor to determine the magnitude with which audit committee attributes may affect financial reporting quality of state-owned commercial enterprises. The discourse of independent, dependent, moderating and intervening variables were applied in demystifying the conceptual model. This research anchored on the economic and institutional propositions to help in explaining how audit committee attributes, firm characteristics and internal control framework influence the quality of financial reporting of the SOCEs in Kenya. Audit committee attributes was positioned as the independent variable and the literature reviewed showed that financial reporting quality was affected by audit committee independence, size, qualification and audit committee meetings conducted in a year. While firm characteristics was believed to moderate the relationship between audit committee attributes and financial reporting quality, internal control framework was also suspected to impact relationship between audit committee attributes and financial reporting quality which is the predicted variable.

The figure further shows the four hypotheses tested in the study with the first used to evaluate linkage amidst audit committee attributes (independent variable) and FRQ (dependent variable). It was aimed to show whether audit committee attributes had direct effect on FRQ given the oversight roles AC play on FR. Hypothesis two tested for the moderating effect firm characteristics had on the interconnection of AC attributes with FRQ. Firm characteristics indicators of firm size, profitability, growth and liquidity were utilized to examine the moderating impact on FRQ. The third hypothesis tested for the

intervening (mediation) effect of the IC framework on the interconnection of amongst the AC attributes, firm characteristics and financial reporting quality by utilizing Baron and Kenny (1986) model. Finally, the combined impact of AC attributes, firm characteristics and internal control framework over financial reporting quality were tested. Additionally, various sub-hypotheses were progressed in the procedure of evaluating four main hypotheses for the purpose of addressing the achievement of research objectives.

Figure 2.1: Conceptual Model



Source: Researcher, 2020

2.6 Research Hypotheses

Hypotheses tested were formulated based on the research objectives and were anchored on the empirical and theoretical literature reviewed and the conceptual model as shown in figure 2.1. The first objective examined the interrelations among audit committee attributes and financial reporting quality of state-owned commercial enterprises in Kenya.

Hypothesis 1

H_1: Audit committee attributes has no significant relationship with financial reporting quality of state-owned commercial enterprises in Kenya.

In the evaluation of the impact of audit committee attributes on each of the financial reporting indicators, three additional sub-hypotheses were developed and tested.

H_{1a}: Audit committee attributes has no significant relationship with accrual quality of state-owned commercial enterprises in Kenya

H_{1b}: Audit committee attributes has no significant relationship with qualitative characteristics of state-owned commercial in Kenya.

H_{1c}: Audit committee attributes has no significant relationship with timeliness in reporting of state-owned commercial enterprises in Kenya.

Hypothesis 2

The second hypothesis was based on the second objective of the study and it investigated the effect of firm characteristics on the amongst audit committee attributes with financial

reporting quality of state-owned commercial enterprises in Kenya. The following hypothesis was tested.

H_2: Firm characteristics have no moderating effect on the association between audit committee attributes and financial reporting quality of state-owned commercial enterprises in Kenya.

Further, additional three sub-hypotheses were driven from the objective and tested with a view of evaluating the moderating influence on the association between audit committee attributes and financial reporting quality.

H_{2a}: Firm liquidity has no moderating effect on the relationship between audit committee independence and financial reporting quality of state-owned commercial enterprises in Kenya

H_{2b}: Firm size has no moderating effect on the relationship between audit committee independence and financial reporting quality of state-owned commercial enterprises in Kenya

H_{2c}: Firm size has no moderating effect on the relationship between audit committee qualifications and financial reporting quality of state-owned commercial enterprises in Kenya

H_{2d}: Firm growth has no moderating effect on the relationship between audit committee size and financial reporting quality in Kenya.

Hypothesis 3

Based on the third objective, the study investigated the intervening effect of internal control framework on the association interrelation of audit committee attributes and financial reporting quality of state-owned commercial enterprises in Kenya leading to the following hypothesis tested.

H_3: Internal control framework has no intervening effect on the relationship between audit committee attributes and financial reporting quality of state-owned commercial enterprises in Kenya.

Based on the third hypothesis, additional two sub-hypotheses were developed and tested as follows:

H_{3a}: Internal control framework has no intervening effect on the relationship between audit committee attributes and accrual quality of state-owned commercial enterprises in Kenya.

H_{3b}: Internal control framework has no intervening effect on the relationship between audit committee attributes and qualitative characteristics of state-owned commercial enterprises in Kenya.

Hypothesis 4

The fourth hypothesis was based on the fourth objective and probed the joint effect that audit committee attributes, firm characteristics and internal control framework had on financial reporting quality of the state-owned commercial enterprises in Kenya. The following hypothesis was tested.

H_4: Audit committee attributes, firm characteristics and internal control framework have no significant joint effect on financial reporting quality of the state-owned commercial enterprises in Kenya.

Given the application of various indicators of financial reporting quality, the following sub-hypothesis were advanced.

H_{4a}: Audit committee attributes, firm characteristics and internal control framework have no significant joint effect on accrual quality of the state-owned commercial enterprises in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section presents study doctrines embraced for the research, the research design, population of the study, data collection techniques, diagnostic assessments conducted, operationalization of study variables and analytical approach adopted and applied in the current fact-finding.

3.2 Research Philosophy

In guiding research effort, the research strategy should be infused with the appropriate research philosophy. Research philosophy provides guidance on how data is gathered, analyzed and used during the research. While Levin (1988) defines research philosophy as beliefs or ideas about the compilation, judgment and analysis of data gathered, Simpson (2009) contends that a researcher adopts a research philosophy in a specific study to mirror far-reaching inferences about his judgment and perspectives and the manner he perceives the world. Saunders et al., (2009) argued that an investigator's unequivocal perspective and assessment of the interdependence of comprehension with procedure developed influenced a choice of specific philosophy.

Saunders et al., (2012) posit and acknowledge that there are numerous philosophies expounded in the research onion which relates to epistemological, ontological and axiological dimensions. Further, Creswell (2009) argue that rather than targeting on techniques, investigators should affirm the study muddle and application of all propositions accessible to fathom the challenge. Saunders et al., (2009) assert that

individual perspective on study philosophy has different doctrines linked to it and notably positivism, interpretivism, pragmatism and realism have been identified to influence research process. Galliers (1991) contend that positivism and interpretivism are the two major research reasoning recognized in the European civilization of science. Social science studies are orientated through positivism and interpretivism research philosophies.

Positivism research seek impartiality and usage of consistent lucid and convincing approaches to research where statistical and numerical capabilities are central to research and observes specific study methods to discover an exclusive and impartial authenticity (Carson et al., 2001). Levin (1988) observes that positivists believe that reality is stable and could be observed and described from an objective point of view without interfering with the phenomena being studied. He further notes that positivism involve construction of quantitative data based on broad specimen while testing theories and hypothesis. While Meyers (1997) contend that positivists assume that reality may be given objectively through measurable properties independent of the observer, Orlikowski and Baroudi (1991) argue that positivists' studies attempt to assess assumptions to augment extrapolative discernment of occurrence and further affirm that positivism is desirable where there is evidence of precise hypotheses, quantifiable variables, assumption measurement while drawing inferences about a phenomenon from a study population.

Crotty (1998) explain that only epistemologically the researcher would target in exploring observable and measurable certainty and regularities, and only phenomena that can be observed and measured may possibly guide creation of dependable and

meaningful data. Further, Crotty posit that a positivist researcher would only try to remain neutral and detached from own research and data to avoid influencing results. The position is supported by Gill and Johnson (2010) asserting that positivist researchers apply structured methodology to facilitate replication while emphasizing quantifiable observations leading to statistical analysis.

However, interpretivism research aims at indulgent and inferring meanings in human behavior instead of generalizing and envisioning cause and ramifications (Neuman, 2000; Hudson & Ozanne, 1998). Saunders et al. (2009) argue that interpretivism believes that knowledge is subjective and based on personal experience of the researcher. He further, notes that the research paradigm is suitable in explaining social matters surrounding human activity as well as understanding the social context of an institution. Crotty (1998) acknowledges interpretivism argument that human beings and their social worlds cannot be examined alike as physical phenomena and that interpretivists reiterate on the value of language, culture and in history in embodying research interpretations and experiences of firms and social worlds.

Positivism research is viewed to emphasize on generality and abstract thought administered by hypotheses and theories while interpretivism focuses on specific thought while seeking to understand specific context of the research. This research is anchored on positivism as it is based on existing theory and formulates quantitative research hypothesis to be tested permitting for establishment of relationship among attributes of audit committee, internal control framework, FC and FRQ in the public sector.

3.3 Research Design

The value of research design is driven by its character as an interpretative link among theories and rationalization informing research and experiential evidence obtained (Nachmias & Nachmias, 2008). Research design has been defined as blueprint for administering an inquiry in the company of uttermost domination above facets could potentially inhibit plausibility of conclusions (Burns & Grove, 2003, 195). Comparatively, Parahoo (1997:142) opine that study design is an intent characterizing the how, when and where evidence is gathered from for evaluation while Polit et al. (2001:167) observed that it is the researcher's comprehension for responding to a research question of hypothesis. While Churchill (1979) observes that research blueprint lays out the conduct for collection and analyzing information in a research, Saunders et al. (2007) argue that an investigation procedure could be presented in an onion form with separate coatings and methods obtainable and used in conducting a research. They further, posit that a number of factors must be considered before a focal point and fundamentals of the onion, assembly of evidence and examination is inscribed.

There are a number of research designs that can be adopted in research including descriptive, longitudinal, survey, explanatory, exploratory, correlational, experimental, casual and cross-sectional designs amongst others. The study sought to establish relationships amongst four variables consisting of audit committee attributes, firm characteristics, internal control framework and financial reporting quality using a measureable paradigm. Punch (2003) notes that to achieve research objectives and goals, appropriate methods must be applied. Robson (2002) argue that quantitative research is suitable in cases where the association among variables was measured and it is consistent

with Coopers and Schindler (2006) argument. Creswell (2002) further claim that a germane delineation to investigate the interconnection amongst variables was conjecturing and correlational determinable exploration approach. The study adopts a descriptive research design.

Definitive study design is observed to be constructed to present an illustration of a position as it normally develops (Burns & Grove, 2003). Saunders et al. (2009) argue that descriptive design could be a forerunner to an exploratory research designs and further notes that the researcher must have a clear description of a phenomena of the study for which the data is to be gathered preceding to data collection. Furthermore, it is claimed that descriptive design depicts a factual portrait of individual, episode or position (Robson & McCartan, 2016).

The descriptive research design suits this kind of study since it allows for testing for the presence of statistical relationships amongst two or more variables and predicting the relationships among the variables while ensuring that all composite factional sectional dissimilarities are incorporated in the representation as supported by previous studies (Ndung'u, 2013; Mang'unyi, 2011). In addition, the study variables were delineated and study hypotheses apparently certain as reinforced by Cooper and Schindler (2003). Further, the design was to inaugurate whether there was a causal link between the variables to be tested (Hossain, Perera & Rahman, 1995).

3.4 Population of Study

Parahoo (2006) exemplifies population as the complete numeral of elements for instance, organisations, individuals or items selected to be evaluated as a representation of the

study. This is consistent with Cooper and Schindler (2003) definition which describes population of study as a category of independent, cases, alternately items having typical characteristics that fit to a designated condition. Miles and Huberman (1994) argue that regardless of the form of study technique utilized either determinable or subjective, for material gathering and scanning, the scientists inescapably countenance challenges while investigating all and sundry, in all settings, doing all things, hence urged to examine a specimen of the study and hypothesize outcome on entire population. For this research, the population consisted of 136 State-owned Commercial Enterprises (SOCEs) as of 31st May 2018 as per data provided by the Inspectorate of State Corporations. The newly created SOCEs after 2008 were not included in the population since their annual reports and audited financial statements between 2008 and 2018 could not be obtained. All the State-owned commercial enterprises were included in the study leading to a census study. Due to the scope of the study and the nature of data expected, some SOCEs were eliminated from the study on account of incomplete data and after filtering the study population, a total of 122 SOCEs with complete and sufficient data were subjected to the study.

Saunders et al. (2009) argue that scientists are comfortable to evaluate a population's attribute at 95% validity of a range plus or minus 3% to 5% of accurate desirability for unparalleled commerce and organizational research. Longitudinal panels of data were developed to track information collected on the annual reports detailing information on audit committee attributes, internal control frameworks, FC and FRQ for SOCEs for period spanning eleven years. State-owned commercial enterprises were chosen for the

study due to existence of a well-grounded financial reporting framework and governance structures.

3.5 Data Collection

Data collection is viewed as an accurate, standardized gathering of information relevant to the study problems through application of approaches including interrogation, observation, in-groups, descriptions along with single-subject research (Burns & Grove, 2010). The study used secondary data from SOCEs' annual reports and audited financial statements for the periods between 2008 and 2018 obtained from the respective State-owned Commercial Enterprises. Annual reports and financial statements were deemed to reflect the fair view of performance of the state-owned commercial enterprises as they are examined by the Office of the Auditor General. Data capture forms in form of Microsoft excel sheets were applied to collect the respective data required for each of the study variables.

The information collected was used to establish the relationships among audit committee attributes, internal control framework, firm characteristics and FRQ. The researcher liaised with the Office of Auditor General wherever there was challenge in obtaining data for the respective SOCE. The study used the panel data where each SOCE's year in the study population became an observation. This allowed the researcher to utilize the study variables from each organisation with appropriate observations.

3.6 Diagnostic Tests

A number of diagnostic tests including multicollinearity, normality, panel unit root, heteroscedasticity and serial auto correlation were done to gauge on how the variables

responded to each other. Keith (2006) observes that Multicollinearity happens when numerous predictor variables correspond at elevated magnitude with another or when a regressor variable is a near linear mixture of other independent variables. Variance Inflation Factor (VIF) and tolerance indicators were applied to test for multicollinearity existence between independent variables before further regression tests. The variables were further subjected to normality tests as a requirement of ordinary least square regression technique where Shapiro-Francia normality test was conducted (Shapiro & Francia, 1972).

Serial correlation test was administered to detect any in case of underestimation of standard errors that could make hypotheses testing invalid (Wooldridge, 2000). Further, heteroscedasticity test was conducted to test for identical inconsistencies of errors across levels of independent variables assuming that inaccuracy proliferate incessantly amongst the variables (Keith, 2006). To evaluate for stationarity among the data, unit root appraisal was also carried out to assess whether a visualization variable was non-stationary and possess a unit root in datasets (Harris & Tzavalis, 1999; Choi, 2001). Finally, test of independence of errors where errors are assumed to be autonomous of another, suggesting that subjects are responding independently (Stevens, 2009) will be undertaken to see the distribution.

3.7 Operationalization of Variables

Operationalization of data includes assigning of numbers, numerals and other symbols to the respective study variables. Sekaran (2006) posit that operationalization specifies a variable to enable its measurement. The study used four variables comprising of Audit

Committee Attributes, Firm Characteristics, Internal Control Framework and Financial Reporting Quality which were independent, moderating, intervening and dependent variable respectively. The predicted variable, FRQ was assessed applying accrual quality, fundamental qualitative characteristics and timeliness quality. The independent variable, audit committee attributes was measured under four indicators including independence (number of independent AC members), qualification (number of AC members with CPA/Finance expertise), size (number of AC members) and AC meetings conducted in a year. These were consistent with indicators used in previous studies (Dechow & Dichev, 2002; Francis et al., 2005; McNichols, 2002; IASB, 2006; Mohiuddin & Karbhari, 2010; Archambeault et al., 2008).

The moderating variable, firm characteristics was measured using total assets (size determined by the natural log of total assets), the profitability (determined by net income earned in a year), liquidity (determined by the liquidity ratio) and growth of the entity (measured by percentage increase in gross revenue earned during the year) while the intervening variable, internal control framework was measured by control environment (determined by the disclosure of statement on integrity and ethical values), control activities as determined by statement on risk identification and analysis, risk assessment (determined by statement on policies and procedures), information and communication (determined by statement on effective communication) and monitoring (determined statement on monitoring and reporting of deficiencies) as used in the prior studies (Sehu & Bello, 2016; Huang, Rose & Lee, 2012; Ge & McVay, 2005; Doyle et al. 2007; The variables of the research have been operationalized as shown in Table 3.1 showing operational definition, indicators of the study, measurement and comparable studies that had used similar measures to support the current choice of the research.

Table 3.1: Operationalization and Measurement Variables

Variable	Definition	Indicator(s)	Measurement(s)	Study using Comparable Measures
	Independent Variable: Audit Committee Attributes			
Audit Committee Attributes	Providing oversight on financial reporting processes and audit of financial statements	Independence (IND)	No. of independent AC members	Mohiuddin & Karbhari, 2010; Archambeault et al. 2008
		Qualification (QUA)	No. of AC members with CPA/Finance Expert	
		Size (SIZ)	No. of AC Members	
		AC Meetings held (MEET)	No. of AC meetings held in a financial year	
ACA	Composite measure of ACA		Geometric mean of ACA components	
	Moderating Variable: Firm Characteristics			
Firm Characteristics	Total Assets	Size (SIZ)	Natural log of total assets	Ge & McVay 2005; Sehu & Bello, 2016; Huang, Rose-Green, & Lee, 2012
	Net Income	Profitability (PRF)	Net income in a year	
	Current assets divided by current liabilities	Liquidity (LIQ)	Liquidity Ratio (LR)	
	Increase in gross revenue	Growth (GRT)	Percentage increase in gross revenue	
	Intervening Variable: Internal Control Framework			
Internal Control	Control Environment (CE)	Statement on integrity & ethical values	1 for disclosure; 0 otherwise	Adopted from Ge & McVay, 2005;

Framework	Control Activities (CA)	Statement on policies & procedures	1 for disclosure; 0 otherwise	Doyle et al. 2007
	Risk Assessment (RA)	Statement on risk identification & analysis	1 for disclosure; 0 otherwise	
	Information & Communication (IC)	Statement on effective communication	1 for disclosure; 0 otherwise	
	Monitoring (MN)	Statement on monitoring and reporting of deficiencies	1 for disclosure; 0 otherwise	
ICF	Composite measure of ICF		Geometric mean of ICF	
	Dependent Variable: Financial Reporting Quality			
Financial Reporting quality	Faithfulness of information as reflected by the financial reporting process.	Accrual Quality	Standard deviation of residuals from pooled sample multiplied by negative 1	Dechow & Dichev, 2002 as modified in McNichols, 2002 and Francis et al., 2005
		Qualitative Characteristics	Use of five rating point scale.	Adopted from IASB, 2006; Jonas & Blanchet, 2000
		Timeliness Reporting	Natural log of number of days before reports are taken to independent auditor.	

Source: Researcher, 2020

3.8 Data Analysis

Data examination is observed to be the appositeness of proposition to understand data gathered with intention of determining consistent patterns and deriving relevant details revealed in the research (Zikmund et al., 2013). Data analysis is further noted to involve the process of getting the data apt for analysis (editing data for accuracy, consistency and completeness); get a sense of the data through descriptive statistics; conduct the good of fit tests through using diagnostic tests and carryout hypothesis testing (Sekaran, 2006). Nachmias and Nachmias (2008) acknowledge that numerical methodologies are paramount instruments for data evaluation in social sciences. The statistical data analysis software, STATA version 16 was used and applied panel data in the analysis. Panel data is a dataset in which the behaviors of organizations are noticed over a pattern. Panel data allows the researcher to superintend for variables not observable or quantifiable identical to variation in execution of commerce beyond organizations (Wooldridge, 2000).

Descriptive statistics comprising of mean, median and standard deviation were calculated to summarize dependent, moderating, intervening and predictor variables applied in the research. The study adopts panel regression analysis to examine models of study and to determine the relationship amongst audit committee attributes, internal control framework, firm characteristics and FRQ. Further, the inquiry adopts Baron and Kenny (1986) approach in assessing for the intervening and moderating influence of IC framework and FC respectively on the link amongst AC attributes and FRQ. Kline (2015) and Howell (2007) assert that multiple regressions is suitable in case where unaccompanied benchmark dependable variable is assumed to be linked to numerous metric independent variables, and therefore, multivariate analysis was utilized in

appraising for the combined consequence of Audit Committee Attributes, Firm Characteristics and Internal Control Framework on Financial Reporting Quality. It's noted that the above analysis was consistent with the previous research conducted to test for main effect, intervention, moderation and joint effect (Klein et al., 2005, Mang'unyi, 2011, Tandelilin et al., 2007, Rogers, 2006). Magnitude of discrete independent factor on the predicted variable analysed using t-test at %5 confidence level.

3.8.1 Audit Committee Attributes and Financial Reporting Quality

Panel regression models were used in determining interconnections among AC Attributes with FRQ of SOCE. Subsequently, panel data analysis was utilized to evaluate the first hypothesis.

$$FRQ_{it}=\beta_0 +\beta_1 AC\_IND_{it}+\beta_2 AC\_QUA_{it}+\beta_3 AC\_SIZ_{it}+\beta_4 AC\_MEET_{it} +u_{it} \quad \text{(3.1)}$$

Where:

FRQ_{it} :	Financial Reporting Quality indicator for *i* SOCE in year *t*
β_0	Intercepts
β_{1-4}	Coefficient of independent variables
AC_IND_{it}:	AC Independence for i SOCE in year t
AC_QUA:	AC Qualification for *i* SOCE in year *t*
AC_SIZ:	AC Size for *i* SOCE in year *t*
AC_MEET:	AC Meetings held for *i* SOCE in year *t*
u_{it}	error term.

3.8.2 Audit Committee Attributes, Firm Characteristics and Financial Reporting Quality

The study applied panel regression analysis in determining moderating influence of FC on the link of AC Attributes to FRQ using the following models to test the second hypothesis.

$FRQ_{it} = \alpha + \beta_1 ACA_{it} + \beta_2 FC_{it} + \beta_3 ACA*FC_{it} + u_{it}$ ……. (3.2)

Where:

FRQ_{it}, $\beta_{0,}$ β_1 as defined in 3.8.1

AC_IND was used as proxy for Audit Committee Attributes

ACA Composite score of Audit Committee Attributes computed as geometric mean of ACA components.

u_{it} is error term

3.8.3 Audit Committee Attributes, Internal Control Framework and Financial Reporting Quality

The study applied Baron and Kenny (1986) approach where four stage tests were employed to conduct an evaluation of the mediating effects of IC framework on interconnection amongst AC attributes with FRQ and the following models were applied in testing third hypothesis. Baron and Kenny (1986) infer a three-variable system involving two causative bridleways contributing to result variable. In the first step, a regression analysis was performed to examine the association between FRQ and AC attributes without considering intervening variable.

$FRQ_a = \beta_0 + \beta_1 ACA + u_{it}$ …….……..... (3.3)

Where:

FRQ_a, β_0, β_1 as defined in 3.8.1 and ACA, as defined in 3.8.2

Multivariate examination was carried out in step two to scrutinize association amongst internal control framework and AC attributes without incorporating FRQ. The following model was employed in the exploration.

$ICFit=\beta_0+ \beta_1ACA+ u_{it}$ ……. (3.4)

Where:

ICF Composite measure of ICF to be determined as a geometric mean of the components of internal control framework

FRQ_a, β_0, β_1 as defined in 3.8.1

A mediation analysis was tested in third stage through a regression analysis to evaluate association amongst IC framework and FRQ through ignoring independent variable using the following regression models.

$FRQit=\beta_0 +\beta_1ICF+u_{it}$……..... (3.5)

Where:

FRQ_a, β_0, β_1 as defined in 3.8.1; ICF as defined in step two

In the last step mediation analysis was performed through a regression analysis to measure the link amongst FRQ, IC framework and AC attributes using the following regression models.

$FRQ_a=\beta_0 + \beta_1ACA +\beta_2ICF+u_{it}$……...……..... (3.6)

Where:

FRQ_a, β_0, β_1 as defined in 3.8.1 above, ICF and ACA defined in steps 2 and 1.

Mediation occurs only when audit committee attributes estimate financial reporting quality, audit committee attributes predicts Internal Control Framework, Internal Control Framework predicts FRQ while AC Attributes forecast Financial Reporting Quality when Internal Control Framework exists in the model.

3.8.4 Audit Committee Attributes, Firm Characteristics, Internal Control Framework and Financial Reporting Quality

This inquiry applied panel regression analysis model to establish combined impact of AC attributes, FC, internal control framework on FRQ. The following models are predetermined for used in testing the fourth hypothesis.

$$FRQ_{it}=\alpha+\beta 1AC\_IND_{it}+\beta 2AC\_QUA_{it}+\beta 3AC\_SIZ_{it}+\beta 4AC\_MEET_{it}+\beta 5F\_SIZ_{it}+\beta 6F\_PRF_{it}+\beta 7F\_LIQ_{it}+\beta 8F\_GRT_{it}+\beta 9ICF\_CE_{it}+\beta 10ICF\_CA_{it}+\beta 11ICF\_RA_{it}+\beta 12ICF\_IC_{it}+\beta 13ICF\_MN_{it}+u_{it} \quad \text{..... (3.7)}$$

Where:

FRQ_{it}, α, β_1, AC_IND, AC_QUA, AC_SIZ, AC_MEET, CE, CA, RA, IC, MN, β_0 and u_{it} as defined in 3.8.1.

F_SIZ – Firm Size; F_PRF - Firm Profitability; F_LIQ - Firm Liquidity; F_GRT - Firm Growth; and $\beta_{1\text{-}13}$ - Regression Coefficients.

Table 3.2: Summary of Objectives, Hypothesis, Analytical Methods and Interpretation

No	Objective	Hypothesis	Analytical method(s)	Interpretation of results
1	Determine the relationship between audit committee attributes and financial reporting quality in the state-owned commercial enterprises.	H_1: AC attributes has no significant relationship with FRQ in SOCEs in Kenya.	Multiple regression analysis, Pearson correlation analysis and goodness of fit test will be performed. $FRQ_{it}=\beta_0 +\beta_1 AC\_IND_{it}+\beta_2 AC\_QUA_{it}+\beta_3 AC\_SIZ_{it}+\beta_4 AC\_MEET_{it}+\ell u_{it}$	If Wald Chi-Square test statistic is conclusive ($p < 0.05$) then null hypothesis is rejected.
2	Establish effect of firm characteristics on association among AC attributes and FRQ in SOCEs	H_2: Firm characteristics have no moderating effect on the relationship between AC attributes and FRQ of SOCEs in Kenya.	Pearson correlation examination, multiple regression analysis as per Baron and Kenny (1986) approach and goodness of fit test will be performed. $FRQ_{it}= \alpha+ \beta_1 ACA_{it} + \beta_2 FC_{it} + \beta_3 ACA*FC_{it} + u_{it}$	Pearson correlation coefficient significance. A relationship exists if F test is statistically significant.

3	Determine the intervening effect of internal control framework on the association between AC attributes and FRQ.	H_3: The internal control framework has no intervening effect on the relationship between AC attributes and FRQ of SOCEs in Kenya.	Pearson correlation analysis to examine intervening effect of internal control framework, regression (stepwise) analysis as per Baron and Kenny (1986) approach and goodness of fit tests will be performed. 1. $FRQ_{it}=\beta_0+\beta_1ACA+u_{it}$ 2. $ICF_{it}=\beta_0+\beta_1ACA+u_{it}$ 3. $FRQit=\beta_0+\beta_1ICF+u_{it}$ 4. $FRQ_{it}=\beta_0+\beta_1ACA+\beta_2ICF+u_{it}$	Wald Chi-Square test statistic is significant ($p < 0.05$). Intervention happens if regression coefficient of the mediating variable is statistically significant in the last step.
4	Determine the joint effect of AC attributes, firm characteristics, and internal control framework on FRQ of the SOCE in Kenya.	H_4: Audit committee attributes, firm characteristics and internal control framework have no significant joint effect on FRQ of SOCEs in Kenya.	Pearson correlation analysis, panel regression analysis and goodness of fit tests will be performed. $FRQ_{it}=\alpha+\beta_1AC\_IND_{it}+\beta_2AC\_QUA_{it}+\beta_3AC\_SIZ_{it}+\beta_4AC\_MEET_{it}+\beta_5F\_SIZ_{it}+\beta_6F\_PRF_{it}+\beta_7F\_LIQ_{it}+\beta_8F\_GRT_{it}+\beta_9ICF\_CE_{it}+\beta_{10}ICF\_CA_{it}+\beta_{11}ICF\_RA_{it}+\beta_{12}ICF\_IC_{it}+\beta_{13}ICF\_MN_{it}+u_{it}$	If Wald Chi-Square test statistic is conclusive ($p < 0.05$) then null hypothesis is rejected. This is an indication that there is no joint effect between the variables.

Source: Researcher, 2020

CHAPTER FOUR

DESCRIPTIVE DATA ANALYSIS

4.1 Introduction

Descriptive statistics are critical for the researcher to envision the data indicating its sufficiency and presents it in a more worthwhile approach which enables easier interpretation of research data. Notably, descriptive statistics relies on a data sample while the hypothesis testing provides an opportunity to the researcher to make judgment about a larger population. The chapter presents the outcome of the diagnostic tests conducted on the regression analysis assumptions as well as the descriptive statistics of AC Attributes, FC, IC Framework and FRQ. The study applied measures of central tendency, dispersion and skewness including mean, median, standard deviation and percentages to present descriptive statistics. Correlation analyses of the study variables were also conducted.

4.2 Descriptive Statistics

This research employed statistical methods comprising mean, median, and standard deviation, minimum and maximum to analyse and summarize the study variables. Mean as a measure of central tendency depict an indicative value in a set of data while standard deviation indicates the dispersion in the sample level of variables. The data covers one hundred and twenty-two state-owned commercial enterprises for a period of eleven years spanning from 2008 to 2018. Table 4.1 reports the mean, standard deviation, maximum, minimum and the number of observations for the period between 2008 and 2018. The analyses of the descriptive statistics for all study variables for the number of observations are shown in the subsequent tables.

Table 4.1: Descriptive Statistics for Audit Committee Attributes

Variable	N	Mean	S.D.	Min	Mdn	Max
Audit Committee Independence	1342	2.95	0.63	2	3	5
Audit Committee Qualification	1342	1.81	0.59	1	2	3
Audit Committee Size	1342	5.11	0.49	4	5	6
Audit Committee Meetings	1342	6.46	1.18	3	6	9

Source: Research Data, 2020

These study findings in Table 4.1 showed that size of audit committee in the state-owned commercial enterprises in Kenya (SOCEs) ranges between 4 and 6 members, with an estimated mean of five (mean=5.11) members. Further, the results show that the number of independent members in audit committees range between 2 and 5 members with an estimated mean of 2 (mean=2.95) members while those with accounting/finance expertise 1 and 3 members with a mean of 2 (mean=1.81) members. The table further indicates that in the course of study duration, number of audit committee meetings held annually ranged between 3 and 9 with a mean of 6 (mean=6.46) meetings in year.

Table 4.2: Descriptive Statistics for Firm Characteristics

Variable	N	Mean	S.D.	Min	Mdn	Max
Firm Size	1342	18.75	8.92	5.19	17.38	222.74
Firm Profitability	1342	1.00E+09	7.80E+09	-6.70E+09	8.30E+05	9.30E+10
Firm Liquidity	1342	2.31	5.63	0.02	1.76	79.25
Firm Growth	1342	12.15	35.75	-543	13.2	1031.8

Source: Research Data, 2020

The findings in table 4.2 reveal an average size of state-owned commercial enterprise in Kenya measured using the natural log of total assets ranges between 5.19 and 222.74 with a mean of 18.75 while the profitability ranged between a loss of Kshs. 6.7 million and

Kshs. 93 million profits with a mean of Kshs. 1 million in profits. The results further indicate that the state-owned commercial enterprises faced liquidity challenges with a minimum of 0.02 and a maximum of 79.25 and a mean of 2.31 while a mean growth rate during the period of 12.5 percent.

Table 4.3: Descriptive statistics for Internal Control Framework

Variable	N	Mean	S.D.	Min	Mdn	Max
Control Environment	1342	3.25	0.76	1	3	4
Control Activity	1342	1.81	0.45	0	2	2
Risk Assessment	1342	3.54	0.57	2	4	4
Information & Communication	1342	2.54	0.69	0	3	3
Monitoring	1342	1.71	0.47	0	2	2

Source: Research Data, 2020

Table 4.3 show that ICF_CE, ICF_CA, ICF_RA, IC_IC and IC_MN had a mean of 3.25, 1.81, 3.54, 2.54 and 1.71 with standard deviation of 0.76, 0.45, 0.57, 0.69 and 0.47 respectively. The mean values of 3.25, 1.81, 3.54, 2.54 and 1.71 for ICF_CE, ICF_CA, ICF_RA, IC_IC and IC_MN respectively indicate that SOCEs have strong control environments achieved through disclosures in the annual reports and financial statements of an obligation to probity and morality, independence of boards, holding individual responsible for their internal control accountabilities and establishing effective and efficient oversight structures. Equally the results indicate that were effective control activities and monitoring in respective SOCEs where they selected and developed ICF_CA, commit conclusively lessening of threats and opportunities geared toward accomplishment of the intent acceptable in respective institution as well as strong evaluation structures for their internal control deficiencies and communicate adequately

to the stakeholders. In addition, the results show that SOCEs identified risks continuously that could affect the implementation of their objectives including risks of fraud while generating quality data in support of the internal control and communication to external stakeholders in regard to efficacy and coherence of the IC structure.

Comparatively, the results indicated standard deviation values of 1.81, 3.54, 2.54 and 1.71 respectively for ICF_CE, ICF_CA, ICF_RA, ICF_IC and MN implying that large variation in the efficacy and competence of IC procedure of SOCEs subjected to the study.

Research findings in Table 4.4 indicate that state-owned commercial enterprise in Kenya disclosed extensive forward-looking statements that helped in forming expectation and predictions regarding the future of the company with a mean of 3.25 and a maximum of 5. Further, results show that presence of non-financial information complimented with financial information in these institutions with a mean of 3.45 and a maximum of 5. At the same time the results show that state-owned commercial enterprises used mostly historical cost compared to fair value at a mean of 2.76 and a standard deviation of 0.73 and also the financial results reported provided feedback that helped the stakeholders to understand how events and transactions influenced the company's performance (mean=3.27; standard deviation, 1.02; min-1; mx-3). This shows that SOCEs' annual financial reports and financial statements disclosed relevant non-monetary and monetary data hence improving FRQ.

Table 4.4: Descriptive Statistics for Qualitative Characteristics.

Variable	N	Mean	S.D.	Min	Mdn	Max
R1	1342	3.25	1.34	1	3	5
R2	1342	3.45	1.11	1	3	5
R3	1342	2.76	0.73	1	3	5
R4	1332	3.27	1.02	1	3	5
F1	1342	2.96	1.14	2	3	5
F2	1342	2.95	0.89	2	3	5
F3	1342	3.17	1.15	1	3	5
F4	1342	3.06	1.14	1	3	5
F5	1342	3.65	0.89	2	4	5
C1	1342	2.88	0.83	2	3	5
C2	1342	3.34	0.88	2	3	5
C3	1342	1.73	0.91	1	1.5	5
C4	1342	2.73	0.89	1	3	5
C5	1342	2.1	1.16	1	2	5
C6	1342	2.58	1.3	1	2	5
T1	1342	3.54	1.1	1	4	5
T1	1342	3.54	1.1	1	4	5
U1	1342	3.85	0.82	2	4	5
U2	1342	3.09	1.06	2	3	5
U3	1342	2.05	1.35	1	2	5
U4	1342	3.53	1.04	1	3	5
U5	1342	1.4	1.01	1	1	5

Source: Research Data, 2020

On faithful representation, the results show that majority of the SOCEs provided general explanations in support of certain assumptions and estimates and basis of choice of accounting principles in annual reports with a mean of 2.96 and 2.95 and normal variance of 1.14 and 0.89 respectively. These indicates that majority of SOCEs did not give

specific explanation in support of certain assumptions and basis of choice of accounting principles which could not help financial statement users in the interpretation of the evidence declared in the annual reports and financial statements. In addition, the results show that SOCEs emphasized on positive events while mentioning negative events (mean-3.06; standard deviation-1.15). Further, the outcome indicated that majority of the state-owned commercial enterprises obtained audit reports with qualified opinions (mean-3.06; standard deviation-1.14) reflecting on the weak internal control framework in the SOCEs. It was also noted that majority of the SOCEs disclosed and provided adequate information on corporate governance in sub-sections in the annual reports (mean-3.65; standard deviation- 089). The standard deviation (0.89) indicates that there was a large variation on the information being disclosed for stakeholder consumption.

On understandability of the annual reports and financial statements, results indicate that bulk of state-owned commercial enterprises in Kenya were well presented in an organized manner (mean-3.85; standard deviation-0.82) while notes to the financial statements provided explanation on what happened in the organisations (mean-3.09; standard deviation-1.06). The results also indicate that majority of the SOCEs used graphical presentations in clarification of information provided in the financial statements (mean-2.05; standard deviation-1.35). While table 4.4 reveals that majority of state-owned commercial enterprises used and explained language and technical jargons in text and glossaries in financial statements (mean-3.53; standard deviation-1.04), the majority of annual reports and financial statements had no glossaries (mean-1.4; standard deviation-1.01). Certainly, the evidence shows that SOCEs fails to disclose sufficient

information in the notes to the financial statements and information including the glossaries which might be critical to the financial statement users and stakeholders.

On comparability of information disclosed and presented in financial statements and annual reports of the state-owned commercial enterprises, the results indicate that few SOCEs provided minimum explanations on the implications of changes in accounting policies (mean-2.88; standard deviation-0.83; median-3; minimum-2; maximum-5) while majority had no revision or clear notes on accounting estimates and judgments to explain revisions in the annual reports and financial statements (mean-3.34; standard deviation-0.88; median-3; minimum-2; maximum-5). The results further indicate that very few state-owned commercial enterprises in Kenya made adjustments on previous financial statements to reflect the impact of either implementation of changes in accounting policies or revision of accounting estimates (mean-1.73; standard deviation-0.91; median-1.5; minimum-1; maximum-5). In addition, a few of the SOCEs produced financial statements with comparison of results of five years of previous accounting periods (mean-2.73; standard deviation-0.89; median-3; minimum-1; maximum-5) while very few of them provided comparable information with those provided by other organisations in the similar industries (mean-2.1; standard deviation-1.16; median-2; minimum-1; maximum-5). Finally, Table 4.4 indicates that fewer state-owned commercial enterprises presented financial index numbers and ratios (1-2 ratios) in their annual reports and financial statements (mean-2.58; standard deviation-1.3; median-2; minimu-1; maximum-5). These indicate that limited analysis of financial information provided by the SOCEs which could be of critical use by the financial statements stakeholders.

On timeliness reporting, the results show that majority of state-owned commercial enterprises in Kenya submitted their annual reports and financial statements within the required period (mean-3.54; standard deviation-1.1; median-4; minimum-1; maximum-5). This indicates that SOCEs complied with the financial reporting timelines as prescribed in the respective legislative framework. The results also indicate a large variation (standard deviation-1.1) in the SOCEs in regard to presentation of annual reports and financial statements to the Auditor General.

Table 4.5: Descriptive Statistics for Qualitative Characteristics

Variable	N	Mean	S.D.	Min	Mdn	Max
Relevance	1342	3.18	0.92	1.25	3	5
Faithful Representation	1342	3.16	0.80	1.8	3	4.8
Understandability	1342	2.79	0.60	2.2	2.6	4.4
Comparability	1342	2.56	0.66	1.5	2.5	4.67
Timeliness Reporting	1342	3.54	1.1	1	4	5

Source: Research Data, 2020

Table 4.5 indicate that annual reports and financial statements presented by the state-owned commercial enterprises in Kenya shows relevance and faithful representation on the information disclosed with a mean of 3.18 and 3.16 and standard deviation of 0.92 and 0.8 respectively. The results indicate that majority of SOCEs provided forward looking statements helping in instituting suppositions together with forecasts about the imminence of organisation, disclosed useful non-monetary data in the reports and financial statements, applied fair value as opposed to historical costs as well as provided feedback to users of annual reports and financial statements. While the table reveal that majority of SOCEs submit their annual financial statements and annual reports for audit

within the required period (mean-3.54; standard deviation-1.1), majority also presented annual financial statements and annual reports with complexity and difficulty to understand by the users (mean-2.79; standard deviation-0.6) which might not be useful and helpful to the annual reports and financial statements users. Simultaneously, the results show that majority of state-owned commercial enterprises fail to prepare annual financial statements and annual reports with comparable information for more than two years accounting period; (mean-2.56; standard deviation-0.66; median-2.5; minimum-1.5; maximum-4.67) leading to insufficient information that could be used by financial statements stakeholders on gauging the performance of the individual SOCE.

Table 4.6 indicate that the state-owned commercial enterprises had increase in accounts receivables over the period (mean-5.90E+05; standard deviation-1.80E+06; minimum-3.40E+04; median-32,603; maximum-9.80E+06), increase in inventory (mean-1.10E+05; standard deviation-1.40E+05; minimum-213; median-37559.50; maximum-8.40E+05) while the decrease in accounts payable and accrued liabilities had a mean of Kshs. 2.2 million with a minimum of Kshs. 1.1 million and a maximum of Kshs. 2.7 billion. This could be seen to reflect weak on the liquidity position that majority of SOCEs faced in running their operations. Equally the decrease in taxes had a mean of Kshs. 60,159.64 with a minimum of Kshs. Kshs.1.1 million and a maximum decrease of Kshs. 1.2 billion which injected additional cash flows into the individual SOCE's operations. Additionally, there was a decrease in other assets (liabilities) with a mean of Kshs. Kshs. 96,608.95, a minimum of Kshs. 330 and a maximum decrease of Kshs. 6.6 billion.

Table 4.6: **Descriptive Statistics for Accrual Quality**

Variable	N	Mean	S.D.	Min	Mdn	Max
Increase in Accounts Receivable	1342	5.90E+05	1.80E+06	-3.40E+04	32603	9.80E+06
Increase in Inventory	1342	1.10E+05	1.40E+05	213	37559.5	8.40E+05
Decrease in Accounts Payable & Accrued Liabilities	1342	2.20E+05	4.00E+05	-1.10E+04	40576	2.70E+06
Decrease in Taxes	1342	60159.64	1.60E+05	-2942	6578.5	1.20E+06
Decrease in Other Assets & (Liabilities)	1342	96608.95	1.40E+05	330	32993	6.60E+05
Sum divided by Average Assets	1342	1.6	1.38	0.03	1.39	17.43
Cash flows divided by Average Assets	1342	1.6	1.38	0.03	1.39	17.43

Source: Research Data, 2020

Table 4.7 shows that AC independence, qualification, size and meetings conducted in a year had mean scores of 2.95, 1.81, 5.11 and 6.46 while firm size, profitability, liquidity and growth had mean scores of 18.75, Kshs. 1 billion, 2.31 and 12.15 respectively. Further, ICF_CE, ICF_CA; ICF_IC and IC_MN had means scores of 3.25, 3.54, 1.81, 2.54 and 1.71 while accrual quality, qualitative characteristics and timeliness reporting had 1.6, 2.92, and 3.54 respectively.

Table 4.7: Summary Statistics of the Descriptive Statistics

Variable		Mean	Median
Audit Committee Attributes	Independence	2.95	3
	Qualification	1.81	2
	Size	5.11	5
	No. of Meetings	6.46	6
Firm Characteristics	Size	18.75	17.38
	Profitability	1.00E+09	8.30E+05
	Liquidity	2.31	1.76
	Growth	12.15	13.2
Internal Control Framework	Control Environment	3.25	3
	Risk Assessment	3.54	4
	Control Activities	1.81	2
	Information & Communication	2.54	3
	Monitoring	1.71	2
Financial Reporting Quality	Accrual Quality	1.6	1.39
	Qualitative Characteristics	2.92	2.78
	Timeliness Reporting	3.54	4

Source: Research Data, 2020

4.3 Panel Data Diagnostic Tests

Prior to undertaking hypothesis testing, diagnostic analyses were conducted to ascertain the appropriateness of the data for further analysis using panel regression analysis. The tests carried out included normality test, panel unit root test, multicollinearity test, heteroscedasticity test and serial correlation test and where any violation of these assumptions was detected, necessary correction measures were applied.

4.3.1 Normality Test

Normality test is a requirement for ordinary least square (OLS) regression techniques which assume that the error term have an asymmetric distribution centered at zero. Violation of requirement may lead to inaccurate hypothesis tests due to exaggerated test statistics. To assess the normality of the distribution of scores, Shapiro-Francia Normality test was used.

4.3.1.1 Shapiro-Francia Normality Test

The null hypothesis for this test was that the data was normally distributed. The Prob < z value listed in the output represented the *p*-value. The values of Shapiro–Francia test statistics (W') were reported in the Table 4.8 together with values of V' which also indicated whether data was normally distributed. The median values of the index V' was 1 for samples from normal populations while large values indicated no normality. The findings in Table 4.8 reveal that the entire study variables except audit committee qualification (AC_QUA, p=0.65816) audit committee Size (AC_SIZ, p=0.05057), audit committee meetings held in a year (AC_MEET, p=0.17581), risk assessment (ICF_RA, p=1) and monitoring (ICF_MN, p=0.99647), reported p-values less than 0.05 and

therefore, we can reject the hypothesis that the variables, AC independence, firm size, firm growth, firm liquidity, financial reporting quality, control environment, information and communication and control activities are normally distributed. Statistical techniques available in the statistical software STATA were used to detect outliers in the research data, dropping the identified ones and the Shapiro-Francia normality test was repeated.

Table 4.8: **Shapiro-Francia test for Normal Data**

Variable	Obs	W'	V'	z	Prob>z
AC_IND	1342	0.98773	10.716	5.539	0.00001
AC_QUA	1342	0.99904	0.84	-0.407	0.65816
AC_SIZ	1342	0.99769	2.018	1.639	0.05057
AC_MEET	1342	0.99829	1.49	0.931	0.17581
F_SIZE	1342	0.52529	414.622	14.076	0.00001
F_GRT	1342	0.19335	704.554	15.314	0.00001
F_LIQ	1342	0.16413	730.07	15.397	0.00001
FRQ	1342	0.88791	97.899	10.705	0.00001
ICF	1342	0.98116	16.453	6.54	0.00001
ICF_CE	1342	0.99144	7.478	4.699	0.00001
ICF_CA	1342	0.98751	10.909	5.581	0.00001
ICF_RA	1342	0.99999	0.005	-12.323	1.00000
ICF_IC	1342	0.98612	12.125	5.827	0.00001
ICF_MN	1342	0.99964	0.315	-2.694	0.99647

Source: Research Data, 2020

Results of the repeat test are shown in Table 4.9 showing that only 1165 study observations were retained. The results from Table 4.9 indicates the AC independence, qualification, size, meetings held in a year, risk assessment together with monitoring reported p-values greater than 0.05 (p=0.099859, 0.18201, 0.70784, 0.77692, 1.0 and 0.9648 respectively) hence indicating normal distribution. The results further indicate that

firm size, firm growth, firm liquidity, financial reporting quality, ICF_CE, ICF_RA, and ICF_IC had *p*-values less 0.05 hence are not normally distributed.

Table 4.9: **Shapiro-Francia Normality test Post Outliers Elimination**

Variable	Obs	W'	V'	P-value
AC_IND	1165	0.99964	0.275	0.99859
AC_QUA	1165	0.99807	1.48	0.18201
AC_SIZ	1165	0.99897	0.79	0.70784
AC_MEET	1165	0.99906	0.72	0.77692
F_SIZE	1165	0.96254	28.787	0.00001
F_PROF	1165	0.26412	565.552	0.00001
F_GRT	1165	0.1634	642.952	0.00001
F_LIQ	1165	0.13875	661.903	0.00001
FRQ	1165	0.88513	88.28	0.00001
ICF_CE	1165	0.99163	6.43	0.00001
ICF_CA	1165	0.98816	9.101	0.00001
ICF_RA	1165	0.99987	0.102	1.0000
ICF_IC	1165	0.98305	13.028	0.00001
ICF_MN	1165	0.9994	0.458	0.9648

Source: Research Data, 2020

4.3.1.2 Data Transformation

Statistical techniques available in the statistical software STATA for transforming non-normal data were used as shown in Table 4.10. Firm variables of firm size, growth, liquidity, financial reporting quality, composite internal control framework, control environment and control activities were transformed. Notwithstanding application of transfiguration techniques, the normalcy of some of the variables could not be attained.

Table 4.10: **Shapiro-Francia Normality Test post Data Transformation**

Variable	Obs	W'	V'	p-value
FRQ	1165	0.97723	17.497	0.00001
ICF	1165	0.99031	7.443	0.00001
ICF_CE	1165	0.99163	6.43	0.00001
ICF_CA	1165	0.98816	9.101	0.00001
ICF_IC	1165	0.98305	13.028	0.00001

Source: Research Data, 2020

4.3.2 Serial Correlation Test

Serial correlation in linear panel data models causes the estimates of the regression coefficients to be consistent but less efficient which may lead to creation of an underestimation of the standard errors rendering hypothesis testing invalid (Wooldridge, 2000). Hence, the Wooldridge test for autocorrelation in panel data was implemented in order to detect the presence of this phenomenon during the hypothesis testing.

4.3.3 Heteroscedasticity Test

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity was used. The null hypothesis suggests the presence of constant variance which means data is homoscedastic.

4.3.4 Multicollinearity Test

Multicollinearity means that the independent variables are highly correlated. To test the assumption of multicollinearity, Variance Inflation Factor (VIF) and tolerance indices were used during regression analyses. A value of VIF >10 indicates multicollinearity is present and the assumption is violated. In addition, correlation analysis was undertaken. The correlation matrix helped to determine whether multicollinearity exists between the independent variables before carrying further analysis using regression. Multicollinearity

subsist when predictor variables are distinctly interrelated (r=0.9 and above). Keller and Warrack (2000) observe that multicollinearity may lead to a poor regression model since it reduces the rigor of the estimate coefficients hence weakening the statistical capability of the regression model.

4.3.5 Panel-Data Unit-Root Test

To determine the stationarity of the data, panel unit root test using statistical software STATA was applied on the study variables. A panel unit root test tests whether a time series variable is non-stationary and possesses a unit root. The null hypothesis is generally defined as the presence of a unit root and the alternative hypothesis is stationarity, trend stationarity or explosive root depending on the test used. In this study, Fisher-type unit-root test was used because it works well with an unbalanced panel data. The test was evaluated against their associated p-values at the conventional 5 percent Statistical level of significance. The null hypothesis of this test was that all panels contain a unit root and the alternative hypothesis was at least one panel was stationary.

Ho: All panels contain unit roots

Ha: At least one panel is stationary

Table 4.11: **Fisher-Panel Unit-Root Test**

Variable	Inverse normal Z statistic (*Z*)		p-value
ICF	*Z*	-0.1883	0.0000*
FRQ	*Z*	-3.1311	0.0009
AC_IND	*Z*	-4.7758	0.0000
AC_QUA	*Z*	8.9156	0.0000*
AC_SIZ	*Z*	14.4877	0.0000*
AC_MEET	*Z*	-23.8864	0.0000
F_SIZE	*Z*	6.2869	0.0000*
F_PROF	*Z*	0.5835	0.0000*
F_GRT	*Z*	-7.0245	0.0000
F_LIQ	Z	-0.77	0.0000*

**Stationary at first difference, null hypothesis: Series contains unit root.*

Source: Research Data, 2020

The table 4.11 shows the test statistics for Z statistics. The results of the inverse normal Z statistics indicate that the panels contain unit roots at level for the study variables for internal control framework, AC qualification, AC size, firm size, firm profitability and firm liquidity (data was stationary) leading to the acceptance of null hypothesis since the p-values were greater than 0.05. However, it was also evident that panel data did not contain unit roots for the study variables of financial reporting quality (FRQ), AC independence (AC-IND), AC meetings (AC_MEET) and firm growth (F_GRT).

To correct for this violation of ordinary least squared (OLS) cardinal requirement (Baltagi, 2008), first difference of the data was undertaken for the study variables of ICF, AC_QUA, AC_SIZE, F_SIZE, F_PROF and F_LIQ where the data was found to be stationary as shown in Table 4.11. The results also shows that internal control framework

(ICF), audit committee qualification (AC_QUA), AC size (AC_SIZ), firm size (F_SIZE), firm profitability (F_PROF), and firm liquidity (F_LIQ) were found to be stationary at the first difference. The evidence reveals that the null hypothesis contained unit roots while FRQ, AC_IND, AC_MEET and F_GRT were non-stationary at 5% significant levels.

4.4 Correlation Analysis

Correlation analysis was carried out to determine whether there were significant associations among audit committee attributes, firm characteristics, IC framework and FRQ. In this study, Pearson correlation was used to explore relationships between the predictors, specifically to assess both the direction and strength. Pearson correlation coefficient denoted by ***r***, take the values between -1 and +1 where -1 shows a perfect negative correlation indicating an increase in one variable proportionately leads to the decline in the other variable. A value of positive 1 (+1) indicates that pair of the indicators shows a perfect interrelations while a value of zero shows no association (Cooper & Schindler, 2013). The closer the Pearson Correlation Coefficient to either -1 or +1, the stronger is the association between the variables. Under this study the correlation results were reported at significance levels of 0.05 which is consistent with similar studies (Madawaki & Amran, 2013; Jennifer, 2014; Davidson, Stewart & Kent, 2005).

4.4.1 Correlation between Audit Committee Attributes, Firm Characteristics, Internal Control Framework and Financial Reporting Quality

The extent of relationship among AC attributes, firm characteristics, IC framework and FRQ was examined using Pearson product moment correlations. Table 4.12 shows the results of the investigation.

Table 4.12: **Pearson Correlation between Audit Committee Attributes Internal Control Framework, Firm Characteristics and Financial Reporting Quality**

Variable	AC_IND	AC_QUA	AC_SIZ	AC_MEET	FRQ	ICF	FC
AC_IND	1						
AC_QUA	0.2641*	1					
AC_SIZ	0.0105	0.2609*	1				
AC_MEET	-0.0336	0.2085*	-0.0066	1			
FRQ	0.1608*	-0.1500*	-0.1107*	-0.0585*	1		
ICF	-0.0239	-0.0189	0.0792*	-0.0354	0.0793*	1	
FC	0.1634*	-0.1336*	-0.1152*	-0.048	0.9925*	0.1118*	1

*. Correlation is significant at the 0.05 level.

Source: Research Data, 2020

The table 4.12 shows that the connection amongst AC independence and AC qualifications is weak, positive and statistically significant (r= 0.2641*, p>0.05). This implied that as the number of AC members with CPA/Finance expertise increased, the number of independent AC members increased. The results found weak conclusive correlation between AC meetings conducted annually and AC qualifications in state owned corporations in Kenya (r= 0.2085*, p>0.05). This was an indication that as the number of AC members with CPA/Finance expertise increases, audit committees are more likely to hold more meetings in a year compared to AC with less number of

qualified members. This was consistent with the institutional theory which contends that organisation's internal control system is supported by effective institutional framework (Godwin, 2004).

The relationship among (FRQ) and AC size (AC_SIZ) was adverse and statistically significant (r=.-0.1107*, p<0.05). The negative interdependence among FRQ and AC size was an indication that as AC size increased, the quality of financial reporting quality decreased. The relationship amongst FRQ and AC independence was weak, conclusive and statistically significant (r=0.1608*, p<0.05). The relationship between AC with members with accounting/finance expertise (r=0.1500*, p<0.05), number of AC meetings held in a year (r=-0.0585*, p<0.05) and financial reporting quality was negative and statistically significant. Results further indicate the association between IC framework and audit committee independence is very weak, negative and non-statistically significant (r= -0.0239, p>0.05) while the relationship between financial reporting quality and IC framework is weak, conclusive and statistically significant (r=0.0793*, p<0.05).

Table 4.12 further indicates that firm characteristics exhibited an incontrovertible and statistically significant correlation with AC independence, FRQ and IC framework (r=0.1634, p<0.05; r=0.9925, p<0.05; r=0.1118, p<0.05). As argued, agency theory reduces information asymmetry; the results indicate that AC independence improves information disclosure, hence financial reporting (Kalbers & Fogarty, 1993). Simultaneously, the results indicate that firm characteristics had a negative and statistically significant correlation with AC qualification and AC Size (r= -0.1336, p<0.05; r= -0.1152, p<0.05).

4.4.2 Correlation between Audit Committee Attributes and Firm Characteristics

The relation amongst AC attributes and firm characteristics was analyzed through the application of Pearson product moment correlation. Audit committee attributes were assessed using audit committee size, independence, qualification and meetings held in a financial year while firm characteristics was measured using firm size, profitability, liquidity and growth. The outcome is shown in Table 4.13.

The results revealed that Firm Size had statistically significant positive link with audit committee independence (r=0.0778, p<.05), AC Size (r=0.1285, p<0.05) and number of AC meetings held in a year (r=0.3068, p<0.05) suggesting that the larger the size of the firm, the higher the increase in number of independent AC members, number of AC members and number of AC meetings held in a year. The result further signaled a statistically significant positive association of Firm Profitability with the qualification of audit committee (r=0.0925, p<0.05) and number of AC meetings held in a year (r=0.0592, p<0.05) and the size of the firm (r=0.02126, p<0.05). This showed that SOCEs with qualified members of audit committee performed well and experienced growth in profitability. Furthermore, those SOCEs with large number of independent audit committee members performed exemplary through efficient and effective internal controls while providing stronger oversight through increased monitoring by holding more audit committee meetings in a year.

Table 4.13: **Pearson Product-Moment Correlation between AC Attributes and FC**

Variables	AC_IND	AC_QUA	AC_SIZ	AC_MEET	F_SIZ	F_PROF	F_LIQ	F_GRT
AC_IND	1							
AC_QUA	0.2641*	1						
AC_SIZ	0.0105	0.2609*	1					
AC_MEET	-0.0336	0.2085*	-0.0066	1				
F_SIZ	0.0778*	0.2388*	0.1285*	0.3068*	1			
F_PROF	-0.0161	0.0925*	-0.1049*	0.0592*	0.2126*	1		
F_LIQ	-0.0046	-0.1105*	-0.0126	-0.0781*	0.0776*	0.0386	1	
F_GRT	-0.0434	0.014	-0.0036	0.0382	0.0496	-0.0589*	-0.0019	1

*. Correlation is significant at the 0.05 level.

Source: Research Data, 2020

There was scientifically substantial and negative interconnection of firm liquidity with audit committee qualification (r=-0.1105, p<0.05) and between firm liquidity with the aggregate of AC meetings conducted in a year (r=-0.0781, p<0.05) while there was statistically significant positive correlation with the firm size indicating that large SOCEs exhibited high liquidity compared to small SOCEs. In addition, firm growth had statistically significant negative correlation with firm profitability denoting that increase in firm liquidity resulted in the decline in the profitability of the firm.

4.4.3 Correlation between Audit Committee Attributes and Internal Control Framework

The relation amidst AC attributes (determined by independence, size, and qualification along with meetings held in a year) and internal control framework (measured by the

ICF_CE, ICF_CA, ICF_RA, ICF_IC and monitoring) assessed using the Pearson correlation analysis. The outcome was as illustrated in Table 4.14.

Table 4.14: **Pearson Correlation between Audit Committee Attributes and Internal Control Framework**

Variables	AC_IND	AC_QUA	AC_SIZ	AC_MEET	ICF_CE	ICF_CA	ICF_RA	ICF_IC	ICF_MN
AC_IND	1								
AC_QUA	0.2641*	1							
AC_SIZ	0.0105	0.2609*	1						
AC_MEET	-0.0336	0.2085*	-0.0066	1					
ICF_CE	-0.0797*	-0.2267*	-0.0261	-0.0177	1				
ICF_CA	0.1045*	0.0249	0.1421*	0.0315	-0.038	1			
ICF_RA	0.0587*	0.0334	0.0729*	-0.0772*	0.1268*	0.0067	1		
ICF_IC	-0.0786*	0.1581*	-0.0011	-0.0096	-0.0468	0.0152	-0.0229	1	
ICF_MN	-0.0074	0.0076	0.0452	0.0018	0.0233	0.1317*	0.0418	0.0128	1

*. Correlation is significant at the 0.05 level.

Source: Research Data, 2020

As exhibited in the Table 4.14, there was statistically significant negative association between control environment with both audit committee independence (r=-0.0797, p<0.05) and audit committee qualification (r=-0.2267, p<0.05). The same was depicted between information and communication and audit committee independence (r=-0.0786, p<0.05) while it had statistically significant and indisputable correlation with audit committee qualification. This indicated that increase in members of the AC members

with accounting/finance expertise improved the information provided in the financial statements and annual reports and communication feedback amongst the audit committee and management. Equally the results showed that Control Activities had significant positive correlation with AC independence (r=0.1045, p<0.05) and size of the audit committee (r=0.1421, p<0.05) respectively. This implied that control activities in the state-owned commercial enterprises were enhanced with the increase in number of independent AC members. The argument for the agency theory is supported since independent audit committees are noted to reduce information asymmetry by instituting strong internal controls (Godwin, 2004). It was also observed that monitoring as one of the components of internal control framework had a statistically significant conclusive interdependence with control activities (r=0.01317, p<0.05) indicating that with effective monitoring enhances control activities in these institutions.

4.4.4 Correlation between Internal Control Framework and Firm Characteristics

The association between internal control framework (measured by control environment, control activities, risk assessment, information & communication and monitoring) and firm characteristics (as determined by the size, profitability, growth and liquidity) was evaluated using the Pearson correlation analysis. The findings are shown in Table 4.15.

Table 4.15: **Pearson Correlation between Internal Control Framework and Firm Characteristics**

Variable	ICF_CE	ICF_CA	ICF_RA	ICF_IC	ICF_MN	F_SIZE	F_PROF	F_GRT	F_LIQ
ICF_CE	1								
ICF_CA	-0.038	1							
ICF_RA	0.1268*	0.0067	1						
ICF_IC	-0.0468	0.0152	-0.0229	1					
ICF_MN	0.0233	0.1317*	0.0418	0.0128	1				
F_SIZE	-0.0433	0.1153*	0.0605*	-0.0336	0.0193	1			
F_PROF	-0.0328	-0.0442	-0.0487	0.0376	-0.0006	0.2126*	1		
F_GRT	0.0348	0.0249	-0.0245	0.0175	-0.031	0.0496	-0.0589*	1	
F_LIQ	0.0869*	0.0382	0.0690*	0.0495	0.0391	0.0776*	0.0386	-0.0019	1

*Correlation is significant at the 0.05 level.

Source: Research Data, 2020

From Table 4.15, risk assessment, monitoring, firm size, profitability, and liquidity had statistically significant conclusive interrelation with control environment (r=0.1268, p<0.05); monitoring (r=0.1317, p<0.05); control assessment (r=0.1153, p<0.05) and risk assessment (r=0.0605, p<0.05); firm size (r=0.2126, p<0.05); and control environment (r=0.0869, p<0.05), risk assessment (r=0.0690, p<0.05) and Firm Size (r=0.0776, p<0.05) respectively. This revealed that those SOCEs who were committed to integrity and ethical values with stronger oversight and clear reporting lines identified risks in addition to specifying intent with adequate intelligibility which enhanced discernment and examination of risks that the firms were exposed to. The results showed that firm liquidity had greater impact on the size of the firm and vice versa. Increment in liquidity resulted into increment in number of firm assets. Notably, firm profitability depended significantly on the size of the firm and we concluded that state-owned commercial enterprises with large asset base earned high net income as opposed to those with small

asset base. Further, the analysis showed that firm size and liquidity had statistically significant constructive relationship with risk assessment (r = 0.0605, p < 0.05; r=0.0690, p<0.05). We concluded that the more and rigorous risk assessments conducted, the more there was increase in asset value and liquidity of the SOCEs. Likewise, firm growth showed statistically significant negative association with firm profitability (r=-0.0589, p<0.05) indicating that firm growth affected firm's profitability.

4.4.5 Correlation between Financial Reporting Quality, Internal Control Framework and Firm Characteristics

We further evaluated the relationship between financial reporting quality (determined by accrual quality, qualitative characteristics and timeliness reporting) internal control framework (measured by control environment, control activities, risk assessment, information & communication and monitoring) and firm characteristics (as determined by the size, profitability, growth and liquidity) using the Pearson correlation assessment as shown in Table.4.16.

Whereas outcome in Table 4.16 indicated that financial reporting quality had statistically significant and conclusive relationship with internal control framework (r=0.0793, p<0.05), conversely it showed statistically and adverse interconnection with firm size (r=-0.0755, p<0.05). This revealed that strong internal control framework impacts positively on the FRQ of the SOCEs and these could be attributed to establishment of strong monitoring activities and feedback mechanism to stakeholders, deploying effective control activities through development of internal policies and enhanced compliance. It was further observed that profitability manifested statistically significant and adverse

correlation with Financial Reporting Quality (r=-0.0675, p<0.05) and Firm Growth (r=-0.0589, p<0.05) which revealed that SOCEs with high profitability did not failed in divulging sufficient monetary and non-monetary information that enabled FRQ in the institutions. Accordingly, it was discernible that state-owned commercial enterprises with high net income did not have FRQ. Equally it could be concluded that those with high growth rate did not also have FRQ.

Table 4.16: **Pearson Correlation between Internal Control Framework, Financial Reporting Quality and Firm Characteristics**

Variables	ICF	FRQ	F_SIZE	F_PROF	F_LIQ	F_GRT
ICF	1					
FRQ	0.0793*	1				
F_SIZE	0.0311	-0.0755*	1			
F_PROF	-0.0346	-0.0675*	0.2126*	1		
F_LIQ	0.1256*	0.1174*	0.0776*	0.0386	1	
F_GRT	0.0145	-0.0107	0.0496	-0.0589*	-0.0019	1

*Correlation is significant at the 0.05 level.

Source: Research Data, 2020

Firm liquidity had shown a statistically significant correlation with internal control framework, financial reporting quality and firm size (r=0.1256, p<0.05; r=0.1174, p<0.05; and r=0.0776, p<0.05) respectively. It is evident that state-owned commercial enterprises with strong internal control framework had high liquidity, quality information disclosure in annual reports and financial statements leading to quality financial reporting and high asset value which signaled prudent management of the institutions. Small

SOCEs exhibited stronger risk assessment framework, control environment and strong internal policies for monitoring and information and communication feedback which provided timely information to stakeholders.

4.5 Hausman Specification Test for Fixed/Random Effects Model Estimation

While using panel data had many advantages, in order to study an empirical phenomenon, one needed to draw conclusion if application of fixed effect model or a random effect model (Bell et. al., 2018; Bell & Jones, 2015) were applied. The selection of representation in panel data ought to be grounded on facts in regard to solitary definite portion and endogeneity of the predictor variables (Bell et. al., 2018). Hausman test was applied to check the suitability of fixed or random effect for this dataset as was proposed by Hausman (1978) as a test statistics for endogeneity which by directly compared fixed and random effects estimates of coefficients values. To decide the appropriate model amidst fixed effect model (FEM) and random effect model (REM), Hausman analysis was used where the estimation of both models in particular order which begun with FEM against the alternative hypothesis of REM which was appropriate at 5% confidence level. Based on Hausman test, chi-square and corresponding p-value, null hypothesis was accepted or rejected.

4.6 Summary of the Chapter

This chapter conferred outcome of descriptive statistical data analyses and presentation. The tests were based on the study variables comprising of independent, dependent, moderating and intervening variables. The analyses results were classified as per the study objectives where the descriptive statistics were applied to epitomize the STATA outputs. Research data were normalized using Shapiro-Francia normality test statistics

together with *p*-values at levels of significance to fit the random effect and fixed effect models using Hausman Specification test.

The study's center of attention was on the determination of the relationship amongst the AC attributes, FCs, internal control framework and FRQ in the SOCEs in Kenya. The attributes of the audit committee consisted of four indicators namely: independence, qualification, size and meetings held annually. The results showed that size of AC in SOCEs ranged from 4 to 6 members with an estimated mean of 5.11 while those with accounting/finance expertise had a mean of 2.95. SOCEs held averagely 6 AC meetings in a year which also reflected in the quality of financial reporting. Firm characteristics were applied as the moderating variable measured by the size, profitability, liquidity and growth of the SOCE. The results from the analyses indicated that firm size measured by the natural log of assets mean was 18.75 while they exhibited mean profitability of Kshs. 1 billion, liquidity of 2.31 and growth of 12.15 percent. Similarly, the variation in firm size, profitability, liquidity, and growth was 8.92, Kes. 7.8 billion, 5.63 and 35.75% respectively.

The intervening variable (internal control framework) was evaluated using ICF_CE, ICF_CA, ICF_RA, ICF_IC and ICF_MN with a mean of 3.25, 1.81, 3.54, 2.54 and 1.71 respectively. The results show that majority of SOCEs were committed to disclosing their commitment to integrity and ethical values, development of strong internal controls and maintaining robust communication and feedback mechanism to stakeholders. Markedly, small variation was noted in the components with the lowest standard deviation at 0.45

while the largest was at 0.76 indicating that SOCEs showed little variation on their internal control system.

The financial reporting quality indicators indicated that majority of SOCEs submitted their annual reports and financial statements for annual audits within a stipulated timeframe with a mean of 3.54 and a standard deviation of 1.1. Equally important, the accrual quality showed that SOCEs experienced increase in accounts receivable with a mean of Kshs. 5.9 million and a deviation of Kshs. 1.8 million. Not to mention, SOCEs witnessed decrease in accounts payable with a minimum of a de bit balance of Kshs. 1.1 million and maximum of Kshs. 2.7 million.

Correlation tests were conducted using Pearson's correlation and mixed results were realised. Whereas the results indicated that financial reporting quality had a negative but positive relationship with AC size (r=-0.1107, p<0.05). This implied that SOCEs that had audit committees with fewer numbers resulted in improved quality in financial reporting albeit weak and positive but significant relationship with audit committee independence (r=0.1608, p<0.05). Another key point from the analysis pointed out those SOCEs with larger numbers of independent committee members received quality financial reporting which is in support of the first hypothesis tested. Even though firm characteristics exhibited positive and significant relationship with AC independence, financial reporting quality and internal control framework (r=0.1634, p<0.05; r=0.9925, p<0.05; r=0.1118, p>0.05), it also revealed a negative but significant relationship with qualification and the size of the AC.

At the same time, Table 4.15 demonstrated that risk assessment, monitoring, firm size, profitability and liquidity had statistically significant relationship with control environment (r=0.1268, p<0.05; r=0.1317, p<0.05; r=0.1153, p<0.05; r=0.0605, p<0.05; r=0.2126, p<0.05; r=0.0869, p<0.05; r=0.0690, p<0.05; r=0.0776, p<0.05). The results further indicated that SOCE's profitability banked on the size of the SOCE which illustrated that SOCE with large asset base earned higher net income as opposed to those with less asset base. Similarly, firm size and liquidity exhibited positive and significant relationship with risk assessment (*r=0.0605, p<0.05; r=0.690, p<0.05*).

From the analyses (table 4.16), financial reporting quality displayed a positive relationship with internal control framework (r=0.0793, p<0.05) while at the same time it showed an adverse correlation with firm size (r=-0.0755, p<0.05). This indicated that an effective internal control framework impacted positively on the FR framework of the SOCEs. Correspondingly, the results has shown that SOCEs with high profitability had poor financial reporting quality (r=-0.0675, p<0.05). In conclusion, the values of the study variables were applied to the research model to establish their effects on financial reporting quality in chapter five.

CHAPTER FIVE

HYPOTHESES TESTING AND DISCUSSIONS OF RESULTS

5.1 Introduction

The section dispenses outcome of tests conducted on the null hypotheses examined and the interpretation of findings on the theoretical and empirical studies in pursuit of the achievement of the four research objectives. The chapter is divided into three areas with the first area focusing on the hypotheses testing using panel regression analysis tools including ordinary least square regression analysis, correlation analysis at a confidence level of 95%. The hypotheses tested were developed from the research objectives. After conducting the panel data diagnostic tests and taking necessarily remedial actions to correct any violation of the cardinal ordinary least square (OLS) requirement identified, the study proceeded to hypothesis testing. To test the hypothesized relationships, panel regression examination was carried out at 95% confidence level. In second section the research findings are presented, discussed and supported with the results of the prior studies. The chapter concludes with a presentation of the summary of inference drawn from the tests.

5.2 The Effect of Audit Committee Attributes on Financial Reporting Quality

The first objective of the study examined the link among AC attributes and FRQ of SOCEs in Kenya. This led to formulation of the first hypothesis stating that the AC attributes had no significant link to the FRQ of SOCEs in Kenya which was supported by the analysis of the literature and various theoretical reasoning. The audit committee attributes comprised of independence, qualification, size and meetings held whereas accrual quality, qualitative characteristics and timeliness reporting were applied in the

test as measures of financial reporting quality. The data used for the indicators were obtained from the published audited financial statements and annual reports of the respective state-owned commercial enterprises. The following null hypothesis was tested.

H_1: AC attributes has no significant relationship with FRQ of SOCEs in Kenya.

Three more hypotheses were developed to test the effect of AC attributes on each of the dependent variables for detailed analysis of the relationship. The three sub hypotheses are as follows:

H_{1a}: AC attributes has no significant relationship with accrual quality of SOCEs in Kenya

H_{1b}: AC attributes has no significant relationship with qualitative characteristics of SOCEs in Kenya

H_{1c}: AC attributes has no significant relationship with timeliness reporting of SOCEs in Kenya

This inquiry utilized panel data analysis since it allows for the control of individual heterogeneity (Fitrianto & Musakkal, 2016). This heterogeneous cannot be swayed by time series and cross-sectional analysis hence leading to biased results. Both fixed effects model and random effects models can be run in a panel data analysis (Bell et. al., 2018).

5.2.1 Diagnostic Tests

5.2.1.1 Multicollinearity

Panel multicollinearity test was conducted to eliminate possibility of having collinear descriptive variables used in the analysis. Based on the results of Table 5.1, Variance

Inflation Factor (VIF) < 10 and the mean VIF was 1.11, which indicated that independent variables were distinctly interdependent, hence non-existence of multicollinearity. This demonstrated the suitability of the variables for panel data regression analysis.

Table 5.1: **Multicollinearity test results (Mean VIF=1.11)**

Variable	VIF	1/VIF (Tolerance)
Audit Committee Qualification	1.23	0.815561
Audit Committee Independence	1.09	0.917587
Audit Committee Size	1.08	0.923554
Audit Committee Meetings	1.06	0.943295

Source: Research Data, 2020

5.2.1.2 Heteroscedasticity

Breusch-Pagan/Cook-Weisberg test for Heteroskedasticity was used. The null hypothesis suggests the presence of constant variance which means data is homoscedastic. The *p*-value was 0.5008 which was not significant and therefore the null hypothesis is rejected. Therefore, the dataset has no heteroskedastic variances.

5.2.1.3 Serial Correlation Test

Autocorrelation in the panel data was conducted to identify idiosyncratic error term as argued by Wooldridge (2002) since it requires relatively few assumptions which are easily implementable. The null hypothesis indicated that there was no serial correlation. Serial correlation causes the standard errors of the coefficients to be smaller than they actually are and higher R-squared (R^2). A significant R-squared statistics indicates the presence of serial correlation. Results of Wooldridge test indicated that the problem of autocorrelation was not present.

Table 5.2: Wooldridge Test for Autocorrelation

Test Statistic	**Prob > F**
0.473	0.4930

Null Hypothesis: There is no serial correlation

Source: Research Data, 2020

5.2.2 Hausman Specification Test

To decide between fixed or random effects, Hausman test was used where the null hypothesis was that the preferred model was random effects verses the alternative, the fixed effects (Green, 2008). The test basically tested whether the unique errors (u_i) were correlated with the regressors, where the null hypothesis was that they were not and the output shown in Table 5.3.

Table 5.3: **Hausman Test**

Chi-square Statistic	P-Value
0.02	0.8831

Null Hypothesis: The appropriate model is Random effects.

Source: Research Data, 2020

5.2.3 Random Effect Panel Regression Analysis

The study examined the influence of AC attributes on the FRQ of SOCEs in Kenya. Results of Hausman tests revealed that a random effects model were appropriate as shown in Table 5.4. Random Effect model was run with a robust option to ensure that the covariance estimator could handle Heteroskedasticity of unknown form.

Table 5.4: **Results of the Random Effect model, Responsive Variable: Financial Reporting Quality**

	(1)
VARIABLES	Random Effects
AC_IND	0.0148**
	(0.00624)
AC_QUA	-0.0138**
	(0.00657)
AC_SIZ	-0.00552
	(0.00688)
AC_MEET	-4.90e-06
	(8.12e-05)
Constant	0.143***
	(0.0387)
Observations	1,165
R-Squared	0.0695
Wald chi2 (4)	9.95
Prob > chi2	0.0412
Number of SOCE_ID	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

Table 5.4 provided information about model regression coefficients and the results showed a statistically significant effect of both audit committee independence (β= 0.0148, p<0.01) and Audit Committee Qualification (β= -0.0138, p<0.01) on financial reporting quality (FRQ) for the random effect model. The random effects models further revealed that the relationship between financial reporting quality and audit committee size was negative and not statistically significant. Similarly, the relationship between financial reporting quality and audit committee meetings held in a year was negative (β=-4.90e-06, p>0.05) not statistically significant. The value of Wald Chi-Square statistic (Wald chi2 (4)) is 9.95 and Prob > chi2 is 0.0412. The Wald test was used to test the

hypothesis that at least one of the predictors' regression coefficients was not equal to zero. The number in the parentheses indicated the degrees of freedom of the Chi-Square distribution used to test the Wald Chi-Square statistic and was defined by the number of predictors in the model (4). The results from the Wald Chi-Square test indicated that the model as a whole was (all the predictors' regression coefficients taken jointly) significant. R-squared (R^2) was 0.0695 which suggested that audit committee attributes accounted for 6.95% of the variance in financial reporting quality. Based on the results as indicated, hypothesis was therefore rejected.

The following sub-hypothesis was examined to get more insight on the connection between AC attributes and FRQ of SOCEs in Kenya.

H_{1a}: AC Attributes has no significant relationship with Accrual Quality of the SOCEs in Kenya

5.2.3.1 Diagnostic Tests

Multicollinearity

Based on the results shown in Table 5.5, Variance Inflation Factor (VIF) < 10 and the mean VIF was 1.12, an indication that independent variable was not highly interrelated, hence non-existence of multicollinearity. This indicated the appropriateness of variables for panel data analysis in the model.

Table 5.5: **Multicollinearity Test Results (Mean VIF=1.12)**

Variable	VIF	1/VIF
AC_QUA	1.23	0.812618
AC_IND	1.09	0.915856
AC_SIZ	1.09	0.921595
AC_MEET	1.06	0.941357

Source: Research Data, 2020

Heteroscedasticity

Table 5.6 presented the results of Breusch-Pagan/Cook-Weisberg test for Heteroskedasticity with a test statistic of 821.87 (*p*-value = 0.0000) which was significant, an indication that the model had heteroscedasticity in the residual of this regression model.

Table 5.6: **Breusch-Pagan test for Heteroskedasticity**

Statistic	p-value
821.87	**0.0000**

Source: Research Data, 2020

5.2.3.2 Panel Regression Analysis

The study scrutinized the influence of audit committee attributes on accrual quality of SOCEs in Kenya and results were as per the Table 5.7. The outcome of this study showed that there was statistically significant relationship between audit committee independence (β= -30.64, $p<0.05$), audit committee qualification (β= 35.54, $p<0.05$), audit committee size (β= 181.0, $p<0.01$), audit committee meetings held in a year (β= 89.42, $p<0.05$) and accrual quality. However, the results showed that the relationship between accrual quality and audit committee independence was negative and statistically conclusive (β= -30.64,

$p<0.05$) while the relationship between accrual quality (AQ) and audit committee qualification (AC_QUA) was positive and statistically significant ($\beta= 35.54$, $p<0.05$). R-squared (R^2) was 0.064 which suggested that audit committee attributes accounted for 6.4% of the variance in the accrual quality which was used as a proxy for financial reporting quality. The hypothesis examined the relationship between accrual quality (AQ) (dependent variable) and audit committee attributes of the state-owned commercial enterprises in Kenya by suggesting that AC attributes had no significant relations with accrual quality in SOCEs in Kenya. The results of the study however, indicated that AC attributes had a significant link to accrual quality and we therefore, rejected the null hypothesis.

Table 5.7: **Results of Panel Regression Analysis, Dependent Variable: Accrual Quality**

	(1)
VARIABLES	Model 1
AC_IND	-30.64**
	(13.87)
AC_QUA	35.54**
	(15.97)
AC_SIZ	181.0***
	(47.50)
AC_MEET	89.42***
	(17.50)
Constant	-1,309***
	(301.3)
Observations	1,164
F(4, 1159)	14.26
Prob > F	0.0000
R-squared	0.064

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

To evaluate further the link between AC attributes on FRQ of the SOCEs in Kenya, the following sub-hypothesis was tested.

H_{1b}: AC attributes has no significant association with qualitative characteristics of the SOCEs in Kenya

5.2.3.3 Diagnostic Tests

Multicollinearity

Based on the results displayed in Table 5.8, Variance Inflation Factor (VIF) < 10 and the mean VIF was 1.11, an indication that the independent variables were not highly interconnected, hence non-existence of multicollinearity. This was a clear indication of the suitability of the indicators used in the panel data regression analysis.

Table 5.8: **Multicollinearity test results (Mean VIF=1.11)**

Variable	VIF	1/VIF (Tolerance)
AC_QUA	1.23	0.815561
AC_IND	1.09	0.917587
AC_SIZ	1.08	0.923554
AC_MEET	1.06	0.943295

Source: Research Data, 2020

Heteroscedasticity

Table 5.9 presents the outcome of Breusch-Pagan/Cook-Weisberg test for heteroscedasticity with a test statistic of 1.47 (p-value = 0.2253) which was not significant which showed the absence of heteroscedasticity in the residual of the regression model.

Table 5.9: **Breusch-Pagan Test for Heteroskedasticity**

Statistic	p-value
1.47	0.2253

Source: Research Data

Serial Correlation Test

Wooldridge test for serial autocorrelation in panel data was conducted and results presented in Table 5.10. The p-value was 0.000, *an indication that* the problem of autocorrelation existed.

Table 5.10: **Wooldridge Test for Autocorrelation**

Statistic	**p-value**
1.023	0.0000

Null Hypothesis: There is no serial correlation

Source: Research Data, 2020

5.2.3.4 Hausman Specification Test

Hausman specification test was used to pick between a fixed or random effects and the results were as outlined in Table 5.11. Based on the study results, the appropriate model was random effects model.

Table 5.11: **Hausman Test to Choose Fixed or Random Effect**

Chi-square Statistic	P-Value
0.01	0.9446

Null Hypothesis: The appropriate model is Random effects.

Source: Research Data, 2020

5.2.3.5 Panel Regression Analysis

The study examined the influence of audit committee attributes on qualitative characteristics of state-owned commercial enterprises in Kenya. The results of panel regression analysis are shown in Table 5.12. Random Effect model was run with a robust option to ensure that the covariance estimator could handle Heteroskedasticity of unknown form. Table 5.12 provides information about model regression coefficients and the results showed that both audit committee independence (AC_IND) (β= 0.0167, $p<0.05$) and audit committee qualification (AC_QUA) (β= -0.0142, $p<0.01$) had statistically significant and positive and negative effect on qualitative characteristics (QC) respectively for the random effect model while the results also indicated that the relationship between qualitative characteristics (QC) and audit committee size (AC_SIZ) was negative and not statistically significant (β= -0.00730). Similarly the relationship between qualitative characteristics (QC) and audit committee meetings (AC_MEET) (β= -4.40e-05) was negative and not statistically significant. The value of Wald Chi-Square statistic was 8.93 while p-value is 0.0629.

The results from the Wald Chi-Square test indicated that the model as a whole was (all the predictors' regression coefficients taken jointly) not significant although audit committee independence and audit committee qualification are significant predictors of qualitative characteristics. R-squared (R^2) was 0.0653 which suggested that audit committee attributes accounted for 6.53% of the variation in qualitative characteristics.

Table 5.12: **Results of the Random Effect model, Predicted Variable: Qualitative Characteristics**

	(1)
VARIABLES	Model 1
AC_IND	0.0167**
	(0.00723)
AC_QUA	-0.0142*
	(0.00743)
AC_SIZ	-0.00730
	(0.00788)
AC_MEET	-4.40e-05
	(8.72e-05)
Constant	0.154***
	(0.0447)
Observations	1,165
R-Squared	0.0653
Wald chi2 (4)	8.93
Prob > chi2	0.0629
Number of SOCE_ID	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: Research Data, 2020

Hypothesis one (H_{1b}) examined the relationship between qualitative characteristics (dependent variable) and AC attributes of state-owned commercial enterprises in Kenya by suggesting Audit Committee Attributes had no significant association with qualitative of state-owned commercial enterprises in Kenya. Results of this study additionally indicated that AC independence (AC_IND) has a significant and positive effect on qualitative characteristics while AC qualifications (AC_QUA) had a negative but statistically significant effect on qualitative characteristics (QC). 6.53% of the variance in QC was accounted for by the four audit committee attributes of independence, qualifications, size and the meetings held in a financial year (AC_MEET). The results

from the Wald Chi-Square test indicated that the model as a whole was not significant and therefore, we failed to reject the hypothesis.

In addition, a sub-hypothesis to test the interrelation between AC attributes and timeliness of reporting of the SOCEs was developed to aide further tests on the link between AC attributes on FRQ of the SOCEs in Kenya. Hence the following hypothesis was tested.

H_{1c}: AC attributes has no significant relationship with timeliness reporting of SOCEs in Kenya

5.2.3.6 Diagnostic Tests

Multicollinearity

Multicollinearity test was conducted and the results presented in Table 5.13 which resulted into a Variance Inflation Factor (VIF) < 10 and the mean VIF is 1.11 an indication that independent measures were not highly interdependent, hence non-existence of multicollinearity which confirmed of the suitability of the variables for panel data regression analysis.

Table 5.13: Multicollinearity Test Results (Mean VIF=1.11)

Variable	VIF	1/VIF (Tolerance)
AC_QUA	1.23	0.815561
AC_IND	1.09	0.917587
AC_SIZ	1.08	0.923554
AC_MEET	1.06	0.943295

Source: Research Data, 2020

Heteroscedasticity

Heteroscedasticity test was conducted using Breusch-Pagan/Cook-Weisberg test for Heteroskedasticity with a test statistic of 14.71 (*p*-value = 0.0001) which affirmed that it was significant corroborating the evidence that heteroscedasticity existed in the residual of the regression model.

Table 5.14: **Breusch-Pagan test for Heteroskedasticity**

Statistic	p-value
14.71	0.0001

Source: Research Data, 2020

Serial Correlation Test

Wooldridge test for autocorrelation in panel data was used (Table 5.15) with a p-value of 0.0000 which showed that autocorrelation existed in the model.

Table 5.15: **Wooldridge Test for Autocorrelation**

Statistic	p-value
431334.283	0.0000

Null Hypothesis: There is no serial correlation

Source: Research Data, 2020

5.2.3.7 Hausman Specification Test

Hausman specification test was applied to choose between fixed or random effect model and the results were shown in Table 5.16 showed the result in support of the random effect model and confirmed as appropriate.

Table 5.16: **Hausman Test to Choose Fixed or Random Effect**

Chi-square statistic	P-Value
0.02	0.8908

Null Hypothesis: The appropriate model is Random effects.

Source: Research Data, 2020

5.2.3.8 Panel Regression Analysis

The study further, examined the influence of audit committee attributes on Timeliness Reporting which was an indicator for financial reporting quality. Results of Hausman test showed that that a random effects model was appropriate as presented in Table 5.17 where a random fixed model was run with an option to ensure that covariance estimator was to handle heteroscedasticity of unknown form.

The research findings on the examination of regression coefficients as shown in Table 5.17 revealed that there was no significant connection that existed amidst AC independence (AC_IND), qualification (AC_QUA), size (AC_SIZ), meetings held in a financial year (AC_MEET) and timeliness reporting (T) (dependent variable). The random effects model also showed that the relationship between timeliness reporting and AC size was negative and not statistically significant (β= -0.145). Similarly, the relationship between timeliness reporting and AC meetings held in a year was very weak, negative and not statistically significant (β= -0.00509). The value of Wald Chi-Square statistic stood at 3.80 while the p-value was 0.4336. The results from the Wald Chi-Square test indicated that the model as a whole was (all the predictors' regression coefficients taken jointly) not statistically significant. R-squared (R^2) was 0.0147 which

suggested that audit committee attributes accounted for about 1.47% of the variance in timeliness reporting used as a proxy of FRQ.

Hypothesis one (H_{1c}) examined the relationship between timeliness reporting (dependent variable) and audit committee attributes of SOCEs by suggesting that AC attributes had no significant relations with timeliness reporting of SOCEs in Kenya. The end product of the research suggested that AC attributes had no significant influence on timeliness reporting. The results from the Wald Chi-Square test (0.4336) also revealed that the whole model was not significant and we therefore, failed fail to reject the hypothesis.

Table 5.17: **Results of the Random Effect Model Panel Regression Analysis, Dependent Variable: Timeliness Reporting**

	(1)
VARIABLES	Model 1
AC_IND	0.0980
	(0.173)
AC_QUA	0.155
	(0.200)
AC_SIZ	-0.145
	(0.163)
AC_MEET	-0.00509
	(0.00381)
Constant	3.834***
	(0.962)
Observations	1,165
R-Squared	0.0147
Wald chi2 (4)	3.80
Prob > chi2	0.4336
Number of SOCE_ID	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

5.3 The Moderating Effect of Firm Characteristics on the Association between Audit Committee Attributes and Financial Reporting Quality in State-owned Commercial Enterprises

The second objective of the study was to establish the effect of firm characteristics on the association among AC attributes and FRQ of SOCEs. Panel regression was utilized to test the hypothesized relationship. The following hypothesis was formulated and evaluated.

H_2: Firm characteristics has no moderating effect on the relationship between AC attributes and FRQ of SOCEs in Kenya

5.3.1 Diagnostic tests

The relevant assumptions of this statistical analysis were tested namely multicollinearity, Heteroscedasticity and autocorrelation.

Multicollinearity

Panel multicollinearity test was conducted to eliminate possibility of having collinear explanatory variables used in the study. The results in Table 5.18 with a mean Variance Inflation Factor (VIF) of < 10 indicated that predictor variable were not highly interdependent hence non-existence of multicollinearity in the model.

Table 5.18: **Multicollinearity Test results (Mean VIF)**

Model	**VIF**
Model 1a	1.00
Model 2a	1.11
Model 1b	1.01
Model 2b	1.00
Model 1c	1.06
Model 2c	1.04

Source: Research Data, 2020

Serial Correlation Test

Further Wooldridge test for autocorrelation in panel data was conducted with the null hypothesis that there was no serial correlation in the model. Results of the test indicated that the problem of autocorrelation was not present.

Table 5.19: **Wooldridge Test for Autocorrelation**

Model	**Test Statistic**	**Prob > F**
Model 1a	0.496	0.4828
Model 2a	0.491	0.4850
Model 1b	0.500	0.4808
Model 2b	0.507	0.4779
Model 1c	0.500	0.4808
Model 2c	0.510	0.4769

Null Hypothesis: There is no serial correlation
Source: Research Data, 2020

5.3.2 Panel Model Regression Results

The moderating effect of firm characteristics on the link among audit committee attributes and financial reporting quality was assessed using the methodology advanced by Baron and Kenny (1986). Baron and Kerry discussed steps for testing moderating effect as follows.

In step 1, the association between dependent and independent variable (model 1) using panel regression analysis was estimated as guided by Hausman specification test and the model was expected to be statistically significant. In step 2, an interaction term was introduced and computed by multiplying centered independent variable and centered moderator. Centering was achieved by subtracting mean from a variable. The association

amongst dependent, independent and moderator variables with the interaction term (model 2) was estimated to determine and check whether the moderator variable altered the strength of the causal relationship.

Moderating Effect Estimation Models

In model 1a and model 2a, AC independence was used as measure of AC attributes while Firm Liquidity was used as proxy for firm characteristics. In model 1b and model 2b, AC independence was used as a measure for AC attributes while firm size was used as a measure for firm characteristics. In model 1c and model 2c, AC qualification was used as proxy for AC attributes whereas firm size was used as the measure for firm characteristics.

Additional Hypotheses were developed from the second hypothesis and evaluated to provide more insight in the relationship in the second hypothesis. These hypotheses were analysed based on the research methodology and approach adopted in the research as postulated by Baron and Kenny (1986).

H_{2a}: Firm liquidity has no moderating effect on the relationship between AC independence and FRQ of the SOCEs in Kenya

H_{2b}: Firm size has no moderating effect on the relationship between AC independence and FRQ of the SOCEs in Kenya

H_{2c}: Firm size has no moderating effect on the relationship between AC qualifications and FRQ of the SOCE in Kenya

H_{2d}: Firm growth has no moderating effect on the relationship between AC attributes and FRQ of the SOCEs in Kenya

To understand the additional hypotheses, various models were developed to aide in the analyses of the hypotheses developed. Numerous combinations were computed to reflect on the models developed. The combinations in models were developed as illustrated in the table 5.20.

Table 5.20: **Moderating effect estimation models, Dependent Variable: FRQ, Independent Variable: Audit Committee Characteristics (AC_IND), and Firm Characteristics (moderator)**

Model	**Audit Committee Attributes (Predictor/IV)**	**Firm Characteristics (Moderator)**	**Interaction Term**
Model 1a	AC_IND	F_LIQ	
Model 2a	AC_IND	F_LIQ	AC_IND*F_LIQ
Model 1b	AC_IND	F_SIZE	
Model 2b	AC_IND	F_SIZE	AC_IND*F_SIZ
Model 1c	AC_QUA	F_SIZE	
Model 2c	AC_QUA	F_SIZE	AC_QUA*F_SIZ
Model 1d	AC_SIZ	F_GRT	
Model 2d	AC_SIZ	F_GRT	ACSIZ*FGRT
Model 1e	AC_SIZ	F_PROF	
Model 2e	AC_SIZ	F_PROF	ACSIZ*FPROF
Model 1f	AC_MEET	F_PROF	
Model 2f	AC_MEET	F_PROF	ACMEET*FPROF
Model 1g	AC_MEET	F_GRT	
Model 2g	AC_MEET	F_GRT	ACMEET*FGRT

Source: Researcher, 2020

The analyses were done for the main hypothesis and the additional hypotheses developed from the main hypothesis and outcome explained. The analysis was done for the main hypothesis as follows and results presented in Table 5.21.

H_{2a}: Firm liquidity has no moderating effect on the relationship between AC independence and FRQ of the SOCEs in Kenya

In step 1 (model 1a), the Random Effect model estimator was used to estimate the interrelation among AC independence, firm liquidity and FRQ. The results of panel regression analysis were presented as shown in Table 5.21 and showed that model 1a as a whole was (all the predictors' regression coefficients taken jointly) significant (Prob > chi2<0.05). Furthermore, audit committee independence (β= 0.0113, p<0.1) and Firm Liquidity (β= 0.000177, p<0.01) were significant predictors of financial reporting quality while firm liquidity had significant moderating influence on the correlation among AC attributes and FRQ. R-squared (R^2) was 0.0309 which suggested that audit committee independence (independent variable) and firm liquidity jointly accounted for about 3.09% of the variance in financial reporting quality.

In step 2 (model 2a), the interaction term was introduced in the panel regression model. Random Effect model was ran to estimate the association of AC Independence, firm liquidity, AC independence multiplied by firm liquidity (interaction term) (β= 0.000128) and financial reporting quality. Results of panel regression were as shown in Table 5.21. The results from the Wald Chi-Square test revealed that model 2a as a whole was (all the predictors' regression coefficients taken jointly) significant (Prob > chi2<0.05). Furthermore, audit committee independence (β= 0.0113, p<0.1) and firm liquidity (β=

0.000177, p<0.01) were significant predictors of FRQ. The interaction term (AC independence multiplied by firm liquidity was not statistically significant (p>0.05). R-squared (R^2) was 0.0313 which suggested that audit committee independence, firm liquidity and the interaction term (AC independence multiplied by firm liquidity) jointly accounted for about 3.13% of the variance in FRQ. It was further observed that R^2 changed from 0.0309 to 0.0313 in model 2a.

Table 5.21: Panel Random–Effects Regression Results, Dependent Variable: FRQ, Predictors: Audit Committee Characteristics (AC_IND) and Firm Characteristics (F_LIQ)

	(1)	(2)
VARIABLES	Model 1a	Model 2a
AC_IND	0.0113*	0.0113*
	(0.00607)	(0.00606)
F_LIQ	0.000177***	0.000177***
	(1.91e-05)	(1.36e-05)
AC_IND*F_LIQ		0.000128
		(9.96e-05)
Constant	0.101***	0.101***
	(0.0179)	(0.0179)
Observations	1,165	1,165
R-Squared	0.0309	0.0313
Wald chi2(2)	96.66	187.64
Prob > chi2	0.0000	0.0000
Number of SOCE_ID	108	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

The predictor and moderator were significant with the interaction term added, and therefore, we concluded that Firm Liquidity moderated the relationship between AC characteristics (AC_IND) and FRQ and therefore, the null hypothesis was rejected.

H_{2b}: Firm size has no moderating effect on the association between AC independence and FRQ of the SOCEs in Kenya

In step 1 (model 1b), panel Random Effect model was conducted to estimate the association among AC independence, firm size and FRQ. The outcomes of panel regression analysis were presented as shown in Table 5.22. From the analyses, the results from the Wald Chi-Square test indicated that model 1b as a whole was (all the predictors' regression coefficients taken jointly) not significant. Furthermore, AC independence (β= 0.0113, p<0.1) was statistically significant while firm size (β= 2.62e-05) was not statistically significant. R-squared (R^2) was 0.0253 which suggested that audit committee independence and firm size jointly accounted for about 2.53% of the variance in financial reporting quality of SOCEs.

In step 2 (model 2b), the interaction term was introduced in the panel regression model. Random Effect model was run to estimate the relation amongst AC independence (independent variable), firm size (moderator), audit committee independence multiplied by firm size (interaction term) and FRQ. The results of panel regression analysis were tabulated in Table 5.22. The results from the Wald Chi-Square test showed that model 2b as a whole was (all the predictors' regression coefficients taken jointly) not significant.

Table 5.22: Panel Random–Effects Regression Results, Dependent variable: FRQ, Predictors: Audit Committee Characteristics (AC_IND) and Firm Characteristics (F_SIZE)

	(1)	(2)
VARIABLES	Model 1b	Model 2b
AC_IND	0.0113*	0.0113*
	(0.00608)	(0.00608)
F_SIZE	2.62e-05	2.70e-05
	(3.65e-05)	(3.77e-05)
AC_IND*F_SIZ		2.54e-05
		(9.71e-05)
Constant	0.101***	0.101***
	(0.0180)	(0.0180)
Observations	1,165	1,165
R-Squared	0.0254	0.0253
Wald chi2(2)	3.91	3.90
Prob > chi2	0.1414	0.2724
Number of SOCE_ID	108	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

The results further showed that audit committee independence (β= 0.0113, p<0.1) had significant influence on financial reporting quality. The relationship between firm size (β= 2.70e-05) and financial reporting quality was found not statistically significant and therefore, we concluded that firm liquidity had no moderating effect on financial reporting quality based on study results. In addition, it was evident from the analyses that the interaction term (AC independence multiplied by firm size) (β= 2.54e-05) was not statistically significant. R-squared (R^2) was found to be 0.0253 which suggested that

AC_IND (independent variable), F_SIZE (moderator) and the interaction term (β= 2.54e-05) jointly accounted for about 2.53% of the variance in financial reporting quality and R^2 was observed to be insignificant. Consequently, based on the results, we concluded that Firm Size had no moderating effect on the interaction between AC characteristics (AC_IND) and FRQ and null hypothesis was accepted.

In the hope that moderation effect of firm characteristics in the link between AC attributes and FRQ evaluated and analysed, the following additional hypothesis was further tested.

H_{2c}: Firm Size has no moderating effect on the relationship between AC qualifications and FRQ of the SOCEs in Kenya

Panel Random Effect model was carried out in the first step of the model (model 1c) to estimate the interconnection amongst audit committee qualification, firm size and FRQ. Results (Table 5.23) from the Wald Chi-Square test indicated that model 1c as a whole was (all the predictors' regression coefficients taken jointly) not significant.

Furthermore, audit committee qualification (β= -0.0109, p<0.1) had statistically significant and negative influence on financial reporting quality while firm size (β= 2.71e-05) was observed not to be statistically significant. R-squared (R^2) was 0.0223 which implied that audit committee qualification and firm size jointly accounted for about 2.23% of the variance in financial reporting quality.

Table 5.23: Panel Random–Effects Regression Results, Dependent Variable: FRQ, Predictors: Audit Committee Attributes (AC_QUA) and Firm Characteristics (F_SIZE)

	(1)	(2)
VARIABLES	Model 1c	Model 2c
AC_QUA	-0.0109*	-0.0109*
	(0.00627)	(0.00627)
F_SIZ	2.71e-05	2.90e-05
	(3.65e-05)	(4.04e-05)
AC_QUA*F_SIZ		3.14e-05
		(0.000111)
Constant	0.153***	0.153***
	(0.0113)	(0.0113)
Observations	1,165	1,165
R-Squared	0.0223	0.0221
Wald chi2(2)	3.61	3.60
Prob > chi2	0.1647	0.3075
Number of SOCE_ID	108	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

The interaction term was introduced in second step in the regression model (model 2c) where Random Effect model was run to evaluate the interrelations between audit committee qualification (independent variable), Firm Size (moderator), audit committee qualification multiplied by firm size (interaction term) and financial reporting quality. Results of panel regression were as presented in Table 5.23. The Wald Chi-Square test results indicated that model 2c as a whole was (all the predictors' regression coefficients taken jointly) not significant. Additionally, the regression coefficient of audit committee

qualification (β= -0.0109, p<0.1) was however statistically significant while the relationship between Firm Size (β= 2.90e-05, p>0.05) and FRQ was not statistically significant and therefore, we concluded that firm liquidity had no significant effect on financial reporting quality based on study results. Notwithstanding, the interaction term (audit committee qualification multiplied by firm size) (β=3.14e-05) was not statistically significant while R-squared (R^2) was 0.0221 which suggested that audit committee qualification (independent variable), firm size (moderator) and the interaction term jointly accounted for about 2.21% of the variation in financial reporting quality. The change in R^2 was very minimal (0.0223 to 0.0221). We therefore, failed to reject the null hypothesis.

In light of the results of the analysis of the above hypotheses, the researcher went further to conduct additional evaluation on the moderating effect that firm characteristics had on the relationship among AC attributes and FRQ which led to the following hypothesis that was tested and results shown in Table 5.24.

H_{2d}: Firm growth has no moderating effect on the relationship between AC size and FRQ of the SOCE in Kenya.

Random Effect model estimator was employed in the first step in the model to estimate the relation amongst audit committee size (AC_SIZ), firm growth (F_GRT) and financial reporting quality (FRQ). The results of panel regression analysis were as presented in Table 5.24. The results from the Wald Chi-Square test showed that model 1d as a whole was (all the predictors' regression coefficients taken jointly) not significant (P-value>0.05). Furthermore, Audit Committee Size (β= -0.00969) and Firm Growth (β= 0.

1.16e-06) had no significant effect on FRQ and markedly, R-squared (R^2) was 0.0122 suggesting that audit committee size (independent variable) and firm growth (moderator) jointly accounted for about 1.22% of the variance in financial reporting quality.

Table 5.24: Panel Random–Effects Regression Results, Dependent Variable: FRQ, Predictors: Audit Committee Attributes (AC_SIZ) and Firm Characteristics (F_GRT)

	(1)	(2)
VARIABLES	Model 1d	Model 2d
AC_SIZ	-0.00969	-0.00966
	(0.00666)	(0.00667)
F_GRT	1.16e-06	1.69e-06
	(1.36e-06)	(1.45e-06)
AC_SIZ_FGRT		1.12e-05
		(1.09e-05)
Constant	0.184***	0.184***
	(0.0347)	(0.0347)
Observations	1,165	1,165
R-Squared	0.0122	0.0123
Wald chi2 (3)	2.73	3.67
Prob > chi2	0.2557	0.3000
Number of SOCE_ID	108	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

To further the analysis, an interaction term was introduced in the regression model (model 2d) in the second step where the Random Effect model was ran to evaluate the association amongst audit committee size (independent variable), firm growth (moderator), audit committee size multiplied by firm growth (interaction term) and

financial reporting quality. The results of panel regression analysis were as shown in Table 5.24. The results from the Wald Chi-Square test revealed that model 2d as a whole was (all the predictors' regression coefficients taken jointly) not significant (P-value>.05). Moreover, audit committee size (β= -0.00966) and Firm Growth (β= 1.69e-06) were not significant predictors of financial reporting quality likewise the interaction term (AC_SIZ*F_GRT) was also not statistically significant (β=1.12e-05).

The analysis revealed that R-squared (R^2) was 0.0123 which exhibited that audit committee size (independent variable), firm growth (moderator) and the interaction term (AC_SIZ*F_GRT) jointly accounted for about 1.23% of the variance in FRQ (dependent variable). The change in R^2 change was noted to be negligible as per the model (model 2d). From the results it was observed that the predictor and moderator were not both significant with the interaction term added, and therefore, concluded that firm growth didn't moderate the interrelation among AC attribute (AC_SIZ) and FRQ. Consequently, we failed to reject null hypothesis based on the results.

5.4 Intervening Effect of Internal Control Framework on the Association between Audit Committee Attributes and Financial Reporting Quality

The third study intent sought to examine mediation effect of IC Framework on the connection among AC attributes and FRQ of the SOCEs in Kenya. The mediation effect was assessed through application of the technique initiated by Baron and Kenny (1986) where four steps were used to examine the intervening effects of the intervening variable on the association between the predictor and predicted variables. In the first step of the intervening model, panel regression was conducted to evaluate the interconnection of

financial reporting quality with audit committee attributes ignoring the internal control framework.

In step two of the intervening procedure, regression was carried out in examining association among internal control framework and AC attributes ignoring FRQ. In the third step, regression analysis was carried out to evaluate the connection that internal control framework had with financial reporting quality ignoring the predictor variable (audit committee attributes). Step four involved investigation of the panel to examine the interdependence amongst FRQ, IC Framework and audit committee attributes.

Baron and Kenny (1986) assert that intervention only occurs when the four conditions are met and that there must be a significant correlation between independent and dependent variables in absence of the intervening variable. In addition, there must be a significant association among the predictor and mediating variables as well as significant association between the mediating and explained variable. Finally, predictor variable has insignificant effect on the dependent variable while controlling for the influence of the intervening measure on the dependent variable.

To determine the mediation effect of internal control framework on the relation among AC attributes and FRQ, the following additional assumptions were tested.

H_3: Internal control framework has no intervening effect on the relationship between AC attributes and FRQ of the SOCEs in Kenya.

Audit committee independence was used as proxy for AC attributes while the results of Hausman test indicated that random effects model was the preferred model.

Table 5.25: Panel Random–Effects Regression Results, Dependent Variable: Financial Reporting Quality, Predictors: Audit Committee Attributes (AC_IND)

VARIABLES	(1) Model 1
AC_IND	0.0113*
	(0.00607)
Constant	0.101***
	(0.0179)
Observations	1,165
R-Squared	0.0259
Wald chi2(2)	3.45
Prob > chi2	0.0633
Number of SOCE_ID	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Research Data, 2020

The panel Random Effect model was run in the first step of the analysis to estimate the interconnection of financial reporting quality with AC independence while ignoring the internal control framework. The results of panel regression analysis were as displayed in Table 5.25. Findings of Wald Chi-Square evaluated indicated that model 1 as a whole was not significant. It was noted through analysis that the model regression coefficient of audit committee independence (β= 0.0113, $p<0.1$) was however statistically significant. Meanwhile, R-squared (R^2) was 0.0259 which implied that audit committee independence accounted for about 2.59% of the variance in FRQ. Further, the results revealed that AC independence was a significant predictor variable ($p<0.1$) demonstrating that a significant association exited between AC attributes and FRQ.

Table 5.26: Panel Random–Effects Regression Results, Intervening Variable: Internal Control Framework, Predictor: Audit Committee Attributes (AC_IND)

	(1)
VARIABLES	Model 1
AC_IND	-0.0545
	(0.0670)
Constant	13.05***
	(0.203)
Observations	1,165
F-Statistic	0.66
Prob > F	0.4158
R-squared	0.001

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

A further analysis was undertaken in step two of the model, where panel regression was executed in evaluation of the association between internal control framework and audit committee attribute ignoring financial reporting quality. The regression model was found to be statistically significant as shown in Table 5.26. In depth analysis of panel regression model showed that R^2 was 0.001 F (1, 1165) = 0.66, p >0.01. Audit committee independence explained 0.1% of the variance in internal control framework and its regression coefficient was -0.0545 which was not statistically significant (p>0.01) as shown in Table 5.26. The results explained that AC independence was not a significant predictor variable (p>0.05) and therefore, there was no significant relationship between audit committee independence and internal control framework.

In step three, analysis was conducted to examine the association among internal control framework and FRQ ignoring AC attributes. Outcome panel regression was as presented in Table 5.27. From the results shown, Wald Chi-Square test indicated that the model as a whole was not significant. Furthermore, the model regression coefficient of internal control framework (β= 0.00247, p>0.05) was not statistically significant while R-squared (R^2) was 0.0063 which implied that internal control framework accounted for about 0.63% of the variation in financial reporting quality. The evidence revealed that internal control framework was not a significant predictor variable and therefore, there was no significant relationship between internal control framework and FRQ.

Table 5.27: Panel Random–Effects Regression Results, Dependent Variable: Financial Reporting Quality, Predictor: Internal Control Framework

	(1)
VARIABLES	Model 1
ICF	0.00247
	(0.00280)
Constant	0.103***
	(0.0364)
Observations	1,165
R-Squared	0.0063
Wald chi2(2)	0.78
Prob > chi2	0.3772
Number of SOCE_ID	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

The fourth step of the mediation model was undertaken where panel regression analysis was conducted to assess the association between FRQ, internal control framework and AC independence. The results of panel regression analysis were shown in Table 5.28 where Wald Chi-Square analysis showed that the model as a whole was not significant. The outcome of this study showed that audit committee independence (β= 0.0114, $p<0.1$) was a significant predicator of financial reporting quality. However, the model regression coefficient of internal control framework (β= 0.00261, $p>0.05$) was not reliably significant and strengthening position that internal control framework had no significant influence on financial reporting quality. R-squared (R^2) was 0.0328 which demonstrated that audit committee independence and internal control framework jointly accounted for about 3.28% of the variance in FRQ.

Table 5.28: Panel Random–Effects Regression Results, Dependent Variable: Internal Control Framework, Predictor: Audit Committee Attributes (Audit Committee Independence)

	(1)
VARIABLES	Model 1
AC_IND	0.0114*
	(0.00602)
ICF	0.00261
	(0.00283)
Constant	0.0672*
	(0.0396)
Observations	1,165
R-Squared	0.0328
Wald chi2(2)	4.69
Prob > chi2	0.0960
Number of SOCE_ID	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

To evaluate the direct effect, investigation through panel data was administered to test if predictor variable was correlated with the dependent variable. This was necessary to establish if there was an effect that could be intervened. The results of Wald Chi-Square test indicated that model 1 as a whole was not significant and the model regression coefficient of audit committee independence ($\beta = 0.0113$, $p<0.1$) was however statistically significant. In addition, R-squared (R^2) was 0.0259 which implied that audit committee independence accounted for about 2.59% of the variation in FRQ.

To establish if the mediation effect existed in the relationship between FRQ and AC Independence, the model was expected to be statistically significant in the first step of the mediation model meaning the influence of AC attributes on FRQ controlling for the mediator should be statistically significant. However, study results have indicated that the relationship was not statistically significant ($p>.05$) although the association between audit committee independence was statistically significant. Furthermore, the causal variable (audit committee independence) should be correlated with the mediator and the relationship should be statistically significant (step 2 of the mediation model) to satisfy the mediation requirement.

Study results have indicated that model was not statistically significant ($p>.05$). While the third step of the mediation test, the association between the mediator and the dependent variable should be statistically significant, the study results however, have indicated that the association between financial reporting quality and internal control framework was not statistically significant ($p>.05$). Further, the results demonstrated that the relationship between financial reporting quality, audit committee independence and

internal control framework was also not statistically significant. It is therefore, evident that internal control framework had no intervening effect in regard to the relation among AC attributes and FRQ of SOCEs in Kenya, hence acceptance of the null hypothesis.

For further examination of the mediation effect of internal control framework on the association between AC attributes and FRQ of the SOCEs in Kenya, two additional sub-hypotheses were developed and tested. The following was the first sub-hypothesis to be tested.

H_{3a}: Internal control framework has no intervening effect on the association between AC attributes and accrual quality of the SOCEs in Kenya

Audit committee qualification (AC_QUA) was used as a measure of AC attributes in the analysis.

Table 5.29: Panel Regression Results, Dependent Variable: AQ, Predictor: Audit Committee Attributes (AC_QUA)

	(1)
VARIABLES	Model 1
AC_QUA	102.0***
	(27.77)
Constant	-36.57
	(51.42)
Observations	1,164
F(1, 1162)	13.49
Prob > F	0.0003
R-squared	0.011

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

In the first step of the regression model, panel Random Effect model was run to estimate the relationship between FRQ, AC attributes where accrual quality and AC qualification were used as proxies for FRQ and AC attributes respectively while ignoring the internal control framework. The results of panel regression analysis (Table 5.29) indicated that audit committee qualification had reliably significant and conclusive connection to AQ (β= 102.0, $p<0.01$) and R-squared (R^2) was 0.011 which denoted that that audit committee qualification (independent variable) accounted for about 1.1% of the variance in financial reporting quality. This revealed that audit committee qualification was a significant predictor variable ($p<0.01$) demonstrating that significant correlation exited between AC qualification and accrual quality, hence FRQ.

In the second step, an examination of panel data regression was conducted in evaluating the association of internal control framework with audit committee attribute ignoring financial reporting quality. The regression model was noted not to be accurately of magnitude ($p>0.01$) as indicated in Table 5.30. The panel regression model results further indicated that R^2 =0.0004, F (1, 1165) = 0.43, $p >0.01$ while audit committee qualification explained 0.04% of the variance in internal control framework and the regression coefficient of audit committee qualification was -0.0458 and therefore, was not statistically notable ($p>0.01$) as shown in Table 5.30. The results demonstrates that audit committee qualification was not a significant predictor variable ($p>0.01$), hence no remarkable relations existed amidst AC qualification and internal control framework.

Table 5.30: Panel Regression Results, Dependent Variable: ICF, Predictor: Audit Committee Attributes (AC_QUA)

	(1)
VARIABLES	Model 1
AC_QUA	-0.0458
	(0.0700)
Constant	12.97***
	(0.135)
Observations	1,165
F(1, 1163)	0.43
Prob > F	0.5129
R-squared	0.0004

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

The third step of the intervening model, regression was conducted out to appraise the interrelation of internal control framework (intervening variable) with financial reporting quality (dependent variable) ignoring audit committee attribute (independent variable) where accrual quality was applied as a surrogate of FRQ. The results shows that the model regression coefficient of internal control framework (β= 16.22, p>0.05) was not statistically significant. In addition, R-squared (R^2) was 0.002 which implied that internal control framework accounted for about 0.2% of the variance in accrual quality which represents financial reporting quality. This indicated that internal control framework was not a significant predictor variable and therefore, there was no remarkable association of internal control framework with FRQ.

Table 5.31: Panel Regression Results, Dependent Variable: AQ, Predictor: ICF

	(1)
VARIABLES	Model 1
ICF	16.22
	(11.55)
Constant	-66.24
	(149.8)
Observations	1,164
F(1, 1162)	1.97
Prob > F	0.1604
R-squared	0.002

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

In the fourth step of the mediation model, panel regression analysis was conducted to determine the association of FRQ, internal control framework with AC attributes where accrual quality and AC qualification were used as measures of FRQ and AC attributes respectively. Results (Table 5.32) from the analysis reveal that audit committee qualification (β= 102.7, $p<0.01$) was a significant predicator of financial reporting quality while the model regression coefficient of ICF (β= 17.00, $p>0.01$) was not statistically significant and therefore, internal control framework had insignificant influence on FRQ. The finding further indicated that R-squared (R^2) was at 0.013 which implied that audit committee qualification and internal control framework jointly accounted for about 1.3% of the variance in accrual quality which was a measure of financial reporting quality.

Table 5.32: Panel Regression Results, Dependent Variable: AQ, Predictor: AC_QUA, ICF

	(1)
VARIABLES	Model 1
AC_QUA	102.7***
	(14.27)
ICF	17.00
	(10.60)
Constant	-257.0*
	(139.7)
Observations	1,164
F(2, 1161)	26.08
Prob > F	0.0000
R-squared	0.013

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

A second sub-hypothesis was developed to test the intervening impact of the IC framework elements on relation among AC attributes and qualitative characteristics of SOCEs in Kenya. Therefore, the following sub-hypothesis was tested.

H_{3b}: Internal Control Framework has no intervening effect on the relationship between AC Attributes and Qualitative Characteristics of the SOCEs in Kenya.

In the examination of the second sub-hypothesis, AC independence (AC_IND) was used as the proxy for AC attributes.

Table 5.33: Panel Random–Effects Regression Results, Dependent Variable: Qualitative Characteristics, Predictor: Audit Committee Attributes (AC_IND)

	(1)
VARIABLES	Model 1
AC_IND	0.0131*
	(0.00705)
Constant	0.102***
	(0.0208)
Observations	1,165
R-Squared	0.0267
Wald chi2 (1)	3.44
Prob > chi2	0.0638
Number of SOCE_ID	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

In the first step of the mediation model, panel Random Effect was run to evaluate the association among qualitative characteristics with audit committee independence while ignoring the internal control framework. The results of panel regression analysis were as presented in Table 5.33. While the results of Wald Chi-Square test indicated that model 1 as a whole was not significant, the model regression coefficient of audit committee independence (β= 0.0131, p<0.1) was however statistically significant. Additionally, the results reveal that R-squared (R^2) was 0.0267 indicating that audit committee independence accounted for about 2.67% of the deviation in FRQ. The findings show that AC independence was a significant predictor variable (β= 0.0131, p<0.1) demonstrating that consequential association existed amongst audit committee independence and

qualitative characteristics further confirming that AC independence has a significance link with FRQ.

The second step involved analysis of panel data in examining the association of internal control framework (dependent variable) with AC attribute (independent variable) while ignoring FRQ. The results revealed that regression model was not statistically significant ($p>0.05$) with $R^2 = .001$, $F(1, 1165) = 0.66$, $p > 0.05$ while AC independence explained 0.1% of the variance in internal control framework. The regression coefficient of AC independence was -0.0545 which was not reliably substantial ($p>0.01$) as was shown in Table 5.34.

Table 5.34: Panel Random–Effects Regression Results, Dependent Variable: Internal Control Framework, Predictor: Audit Committee Attributes (AC_IND)

	(1)
VARIABLES	Model 1
AC_IND	-0.0545
	(0.0670)
Constant	13.05***
	(0.203)
Observations	1,165
F-Statistic	0.66
Prob > F	0.4158
R-squared	0.001

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

The results exposes that audit committee independence was not a significant predictor variable ($p>0.05$), hence no significant connection existed between audit committee independence and internal control framework.

Table 5.35: Panel Random–Effects Regression Results, Dependent Variable: Qualitative Characteristics, Predictor: Internal Control Framework

	(1)
VARIABLES	Model 1
ICF	0.00325
	(0.00326)
Constant	0.0993**
	(0.0425)
Observations	1,165
R-Squared	0.0084
Wald chi2 (1)	0.99
Prob > chi2	0.3197
Number of SOCE_ID	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

In the third step of the intervening paradigm, regression was carried out to evaluate association of qualitative characteristics with internal control framework ignoring audit committee attribute. The findings of panel data analysis were as presented in Table 5.35. From the findings, Wald Chi-Square test reveals that the model as a whole was not significant. The model regression coefficient of internal control framework ($\beta= 0.00325$, $p>0.05$) was not statistically significant while R-squared (R^2) was 0.0084 which denoted that internal control framework accounted for about 0.84% of the variation in FRQ. This shows that internal control framework was not a significant predictor variable and

therefore, there were insignificant interrelations among internal control framework and FRQ.

Table 5.36: Panel Random–Effects Regression Results, Dependent Variable: Qualitative Characteristics, Predictor: Audit Committee Independence, Internal Control Framework

	(1)
VARIABLES	Model 1
AC_IND	0.0133*
	(0.00699)
ICF	0.00341
	(0.00329)
Constant	0.0579
	(0.0461)
Observations	1,165
R-Squared	0.0358
Wald chi2 (2)	4.93
Prob > chi2	0.0851
Number of SOCE_ID	108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

In step four involved the analysis of the data in evaluating association of FRQ, internal control framework and AC independence. The findings of panel regression analysis were as shown in Table 5.36 which revealed that Wald Chi-Square test model as a whole was not significant. Further, the study analysis of this study shows that AC independence (β= 0.0133, $p<0.01$) was a significant predicator of FRQ.

Comparatively, findings showed that model regression coefficient of ICF ($\beta = 0.00341$, $p>0.05$) was not concretely significant leading to the conclusion that Internal Control Framework had insignificant influence on FRQ. The outcome further revealed that R-squared (R^2) was 0.0358 indicating that audit committee independence and internal control framework jointly accounted for about 3.58% of the variance in financial reporting quality (dependent variable). From the findings, we conclude that internal control framework had no intervening effect on the interrelation between AC attributes and FRQ in the SOCEs, and therefore, we fail to reject the null hypothesis.

5.5 Joint Effect of Audit Committee Attributes, Firm Characteristics and Internal Control Framework on Financial Reporting Quality of SOCE in Kenya

The fourth intent of the research aimed at determining the joint impact of audit committee attributes, FC and internal control framework on financial reporting quality of SOCEs in Kenya. Panel data examination technique applied and to demonstrate the joint effect the variables had on financial reporting quality, the following hypothesis was developed and tested.

H_4: Audit committee attributes, firm characteristics and internal control framework have no significant joint effect on FRQ of the SOCEs in Kenya

5.5.1 Diagnostic Tests

Multicollinearity

Multicollinearity test was conducted to eliminate possibility of having collinear explanatory variables used in the study Variance Inflation Factor. Owing to the outcome presented in Table 5.37, Variance Inflation Factor (VIF) < 10 and the mean VIF is 1.12,

an indication that the independent variables were not highly interdependent, hence no existence of multicollinearity.

Table 5.37: Multicollinearity Test Results (Mean VIF=1.12)

Variable	VIF	1/VIF
AC_QUA	1.41	0.71149
F_SIZE	1.26	0.79546
AC_MEET	1.17	0.851138
AC_SIZ	1.15	0.870142
AC_IND	1.14	0.879905
F_PROF	1.09	0.915216
ICF_CE	1.09	0.920565
ICF_CA	1.07	0.934688
ICF_IC	1.06	0.94177
ICF_RA	1.05	0.952667
F_LIQ	1.05	0.95291
ICF_MN	1.02	0.976997
F_GRT	1.02	0.984356

Source: Research Data, 2020

Heteroscedasticity

Breusch-Pagan/Cook-Weisberg test for Heteroskedasticity was used to test whether the variation in errors from multivariate analysis was dependent on the values of the predictor variables. The null hypothesis suggests that data has homodascedasticity when there is constant presence of variance. From the results, the p-value was 0.3441 which demonstrated non-significance and therefore, the null hypothesis was rejected. This further indicated that the dataset had no heteroskedastic variances.

Serial Correlation Test

Wooldridge test was utilized in evaluating for autocorrelation in panel data. Null hypothesis was postulated indicating no serial correlation. A notable test statistic indicates the presence of serial correlation and the results of Wooldridge analysis were tabulated in Table 5.38 showing that there was no problem of autocorrelation in the model.

Table 5.38: Wooldridge Test for Autocorrelation

Test Statistic	**Prob > F**
0.476	0.4918

Null Hypothesis: There is no serial correlation

Source: Research Data, 2020

5.5.2 Hausman Specification Test

To choose either fixed or random effects, Hausman specification analysis was utilized showing the null hypothesis was to be random effects model verses the alternative fixed effects (Green, 2008). Table 5.39 shows findings of Hausman specification examination based on the analysis undertaken. Owing to findings, Random Effect model was preferred in the analysis of the model.

Table 5.39: Hausman Specification Test to choose Fixed or Random Effect

Chi-square statistic	P-Value
0.32	0.9886

Null Hypothesis: The appropriate model is Random effects.

Source: Research Data, 2020

5.5.2.1 Random Effect Panel Regression Analysis

The inquiry evaluated the joint influence of AC attributes, FC and internal control framework on FRQ of SOCEs. Random effects model was used. Table 5.40 provides information about model regression coefficients conducted to test for joint effects. The results indicated that the relationship between FRQ and AC independence (β= 0. 0.0149, $p<0.05$) was positive and statistically plausible. Similarly the relation of FRQ with AC Qualification (β= -0.0154, $p<0.05$), Firm Liquidity (β= 0.000177, $p<0.01$) and FRQ were negatively and positively and statistically significant respectively.

The effect of audit committee meetings held in a year (β=4.34e-06), Firm Size (β=2.73e-05), firm profitability (β=-4.76e-13), firm growth (β=6.11e-07), control environment (β=-0.00213), control activities (β=0.00642), risk assessment (β=0.00259), information and communication (β=0.00571) and monitoring (β= 0.00419) was not statistically significant according to the results of this study. R-square (R^2) was 0.0910 which suggested that audit committee attributes, firm characteristics and internal control framework jointly accounted for about 9.1% of the variance in FRQ of the SOCEs.

While research findings showed that AC independence (β= 0. 0.0149, $p<0.05$) had a notable and conclusive influence on FRQ, simultaneously, results indicated that audit committee qualification (β = -0.0154, $p<0.05$) displayed negative but veritably consequential on financial reporting quality.

Table 5.40: Results of the Random Effect model for Panel Regression Analysis,

Dependent Variable: Financial Reporting Quality

	(1)
VARIABLES	FRQ
AC_IND	0.0149**
	(0.00639)
AC_QUA	-0.0154**
	(0.00683)
AC_SIZ	-0.00648
	(0.00690)
AC_MEET	4.34e-06
	(5.66e-05)
F_SIZE	2.73e-05
	(3.54e-05)
F_PROF	-4.76e-13
	(0)
F_LIQ	0.000177***
	(1.87e-05)
F_GRT	6.11e-07
	(1.00e-06)
ICF_CE	-0.00213
	(0.00535)
ICF_CA	0.00642
	(0.00767)
ICF_RA	0.00259
	(0.00847)
ICF_IC	0.00571
	(0.00498)
ICF_MN	0.00419
	(0.00870)
Constant	0.114**
	(0.0461)
Observations	1165
R-squared	0.0910
Number of SOCE_ID	108

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Research Data, 2020

In addition, the Random Effect model also revealed that the impact of Firm Liquidity (β= 0.000177, p<0.01) on financial reporting quality was statistically significant while audit committee attributes, firm characteristics and internal control framework jointly accounted for about 9.1% of the variance in financial reporting quality.

A sub-hypothesis was further developed to examine combined influence of audit committee attributes, firm characteristics and internal control framework had on accrual quality of SOCEs. In attainment of the study objective, the following additional hypothesis was examined.

H_{4a}: Audit committee attributes, firm characteristics and internal control framework have no significant joint effect on accrual quality of the SOCE in Kenya

The intervening variable (internal control framework) was excluded from the first analysis while accrual quality was used as a representative of FRQ. The findings in Table 4.41 indicate that audit committee independence (β= -42.32, p<0.01) and firm liquidity (β= -2.375, p<0.01) had statistically significant and negative joint effect on accrual quality while AC size (β=147.2, p<0.01), audit committee meetings held in a year (β= 51.76, p<0.01) and firm size (β=31.80, p<0.01) had statistically consequential and positive joint effect on accrual quality. Further, it is evident from the analysis that audit committee qualification (β= 1.454), Firm Profitability (β= -2.20e-07) and firm growth (β= 0.607) exhibited non-significant joint effect on accrual quality.

Table 5.41: Panel Regression Results, Dependent Variable: Accrual Quality, Predictor: Audit Committee Attributes and Firm Characteristics

	(1)
VARIABLES	Model 1
AC_IND	-42.32***
	(14.51)
AC_QUA	1.454
	(16.37)
AC_SIZ	147.2***
	(45.74)
AC_MEET	51.76***
	(14.98)
F_SIZE	31.80***
	(4.790)
F_PROF	-2.20e-07
	(1.53e-07)
F_GRT	0.607
	(0.433)
F_LIQ	-2.375***
	(0.894)
Constant	-1,361***
	(297.1)
Observations	1,164
F(8, 1155)	9.47
Prob > F	0.0000
R-squared	0.123

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

Additionally, R Squared was 0.123 which implied that audit committee attributes and firm characteristics accounted for about 12.3% variance in financial reporting quality. The outcome showed that audit committee attributes and firm characteristics when internal control framework was excluded from the analysis had significant joint effects on FRQ of the SOCEs.

Table 5.42: Panel Regression Results, Dependent Variable: Accrual Quality, Predictor: Audit Committee Attributes, Firm Characteristics and ICF

	(1)
VARIABLES	Model 1
AC_IND	-41.64***
	(14.43)
AC_QUA	1.845
	(16.36)
AC_SIZ	144.9***
	(44.63)
AC_MEET	52.27***
	(15.15)
F_SIZE	31.67***
	(4.810)
F_PROF	-2.13e-07
	(1.53e-07)
F_GRT	0.601
	(0.438)
F_LIQ	-2.709***
	(0.963)
ICF	10.98
	(9.590)
Constant	-1,493***
	(367.1)
Observations	1,164
F(9, 1154)	8.39
Prob > F	0.0000
R-squared	0.124

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Research Data, 2020

In the second analysis with inclusion of the intervening variable (internal control framework), the results (Table 5.42) indicates that audit committee independence (β= -41.64, p<0.01) and firm liquidity (β= -2.709, p<0.01) had statistically significant and negative joint effects on accrual quality while AC size (β= 144.9, p<0.01), audit committee meetings held in a year (β= 52.27, p < 0.01) and firm size (β= 31.67, p<0.01) exhibited statistically consequential and positive joint effects on accrual quality. Conversely, audit committee qualification (β= 1.845), firm profitability (β= -2.13e-07), firm growth (β= 0.601) and internal control framework (β= 10.98) had no significant joint effects on accrual quality.

The results indicate that R-Squared was 0.124 which demonstrated that audit committee attributes, firm characteristics and internal control framework qualification jointly accounted for about 12.4% of the variance in FRQ of the SOCEs leading to the rejection of the hypothesis.

5.6 Discussion of the Hypothesis Testing and Findings

The central intention of the research focused on determining the association amongst audit committee attributes, firm characteristics, internal control framework and FRQ of the SOCEs in Kenya. The section lay out background for a discussion on the research findings of both the literature and empirical studies geared toward the attainment of the four research objectives that set forth to the hypotheses tested.

The study used correlation analysis, ordinary least square and panel regression analysis models in testing the four hypotheses. Owing to the outcome of analysis, the first and the fourth hypothesis was not confirmed while the second and third hypotheses were confirmed. The interpretation of the data analysed and research findings have been carried out through the application of statistical expertise and existing body of knowledge.

5.6.1 The Effect of Audit Committee Attributes on Financial Reporting Quality

The first objective of the study examined the relation among Audit Committee Attributes and FRQ of SOCEs. The study used AC Independence, Size, Qualification and Meetings held in a year as indicators of the AC Attributes while Accrual Quality, Qualitative Characteristics and Timeliness reporting were used as barometers for FRQ. While the AC Independence shows positive link with FRQ of SOCEs (β= 0.0148, $p<0.01$), Audit Committee Qualification equally reveals a notable negative association with Financial Reporting Quality (β=-0.0138, $p<0.01$). The result is supported by Felo at al. (2003) who argued that audit committee members with either accounting and financial expertise had affirmative link with the FRQ. However, the results also indicate that AC Size and Meetings conducted in a year have negative but non-statically significant relationship with Financial Reporting Quality. The results from the Wald Chi-Square test indicate that the model as a whole was (all the predictors' regression coefficients taken jointly) significant with R-squared (R^2) of 0.0695 which suggests that Audit Committee Attributes accounted for about 6.95% of the variance in financial reporting quality. Equally, Kusnadi et al. (2015) supports the finding as they contend that AC with independent and diversified expertise in accounting and finance enhanced the quality of

FR. Findings are also incongruence to results of study conducted by Bedard and Gendron (2010) who asserted that AC with competence in finance and accounting, independent and small in size impacted positively on financial reporting quality.

Further analysis shows statistically remarkable conclusive positive and adverse impact of both AC Independence (AC_IND) (β= 0.0167, $p<0.05$) and AC Qualification (AC_QUA) (β= -0.0142, $p<0.01$) respectively on Qualitative Characteristics while AC Size (β= -0.00730, $p>0.05$) and AC Meetings held (AC_SIZ) (β= -0.000044, $p>0.05$) indicating a negative and insignificant (β= -0.00730, $p>0.05$) effect on Qualitative Characteristic of SOCEs. However, the results by Kalbers (1992a, 1992b) shows that audit committee attributes of members' expertise, independence and size exhibited significance effect on financial reporting quality which was inconsistent with current study findings. Further, the results from the Wald Chi-Square test indicate that the model as a whole was (all the predictors' regression coefficients taken jointly) not significant although Audit Committee Independence and Audit Committee Qualification were shown as significant predictors of Qualitative Characteristics. R-squared (R^2) was 0.0653 which suggests that audit committee characteristics accounted for 6.53% of the variance in qualitative characteristics. We therefore, fail to reject the hypothesis. Likewise the study results indicated that AC Independence (AC_IND) had a consequential and positive influence on Qualitative Characteristics while AC Qualifications (AC_QUA) had a negative but statistically significant effect on Qualitative Characteristics of SOCEs. The research findings show that AC independence and qualification exhibited an adverse connection with financial reporting quality which was inconsistent with some prior studies (Ogoro & Simiyu, 2015; Hunziker, 2013; BRC, 1999).

Furthermore, the results reveal that there was little evidence to show significant relationship between Audit Committee Independence (β=0.0980, p>0.05), Qualification (β=0.200, p>0.05), Size (β= -0.145, p>0.05), Meetings held in a financial year (β= -0.00509, p>0.05) and Timeliness Reporting in SOCEs. Findings were consistent with research done by Best et al. (2001) which found out that there were no indisputable connections amongst AC attributes and FRQ in the public listed companies in Australia. They further observed that there was no evidence showing AC with high frequency in meetings impacted positively on financial reporting quality. These could be attributed to subjecting specific audit committee attributes to timeliness reporting used as elements of FRQ. Even though the random effects model show that the relationship between Timeliness Reporting and AC Size was adverse and non-significant (β = -0.145, p > 0.05), the findings from Wald Chi-Square test indicate that the model as a whole was (all the predictors' regression coefficients taken jointly) not statistically significant with R-squared (R^2) of 0.0147 suggesting that Audit Committee Attributes accounted for about 1.47% of the variance in Timeliness Reporting which led to the rejection of the hypothesis.

Finally, an additional test examined the effect of AC attributes on accrual quality in SOCEs. Results of the test indicated that there was adversely and statistically significant interrelation among AC Qualification (β= 35.54, p<0.05), Audit Committee Size (β= 181.0, p<0.01), Audit Committee Meetings held in a year (β= 89.42, p<0.05) and Accrual Quality, conversely the relationship between AQ and AQ AC Independence was negative and accurately consequential (β= -30.64, p<0.05). Doyle et al. (2007) supports the result of the study by claiming that increment in number of AC members reduces accrual

quality which is an indicator of financial reporting quality. R-squared (R^2) was found to be 0.064 which suggested that audit committee attributes accounted for 6.4% of the variation in the accrual quality which is a measure of FRQ. The results of the study however, show that AC attributes exhibited outstanding association with AQ leading to the rejection of the null.

5.6.2 The Moderating Effect of Firm Characteristics on the Association between Audit Committee Attributes and Financial Reporting Quality in State-owned Commercial Enterprises

In its second objective, the study sought to determine the impact of Firm Characteristics on the association of AC Attributes with FRQ of SOCEs. Firm Size, Liquidity, Growth and Profitability were used as indicators for Firm Characteristics; Independence, Qualification, Size, and Meetings conducted in a year represented Audit Committee Attributes while Accrual Quality, Qualitative Characteristics and Timeliness Reporting were employed as barometers for Financial Reporting Quality. In step 1 (model 1a), the Random Effect model estimator was used to estimate the connection between AC Independence, Firm Liquidity and FRQ and the results from the Wald Chi-Square test indicated that model 1a as a whole was (all the predictors' regression coefficients taken jointly) significant (Prob > chi2<0.05). Furthermore, Audit Committee Independence (β = 0.0113, $p < 0.1$) and Firm Liquidity (β = 0.000177, $p < 0.01$) were notable predictors of financial reporting quality. R-squared (R^2) was 0.0309 which suggested that Audit Committee Independence (independent variable) and Firm Liquidity (moderator) jointly accounted for 3.09% of the variance in financial reporting quality.

In step 2 (model 2a), the interaction term was introduced in the panel regression using Random Effect model and the results from the Wald Chi-Square test indicate that model 2a as a whole was (all the predictors' regression coefficients taken jointly) significant (Prob > chi2<0.05). Similarly, AC Independence ($\beta = 0.0113$, $p < 0.1$) and Firm Liquidity ($\beta = 0.000177$, $p < 0.01$) were notable interpreter of Financial Reporting Quality while Audit Committee Independence multiplied by Firm Liquidity was insignificant ($p>0.05$). R-squared (R^2) was 0.0313 which suggested that Audit Committee Independence (independent variable), Firm Liquidity (moderator) and the interaction term (Audit Committee Independence multiplied by Firm Liquidity) jointly accounted for 3.13% of the variance in Financial Reporting Quality (dependent variable). The R^2 changed from 0.0309 to 0.0313 in model 2a. The predictor and moderator are significant with the interaction term added, and therefore we concluded that Firm Liquidity moderated the association of AC attributes with FRQ and the null hypothesis is rejected. The results were irreconcilable with those of Oluwokore et al. (2015) who suggested that there was insignificant connection between firm leverage and financial reporting quality. However, Alsaeed (2006) posit that firm profitability influenced financial reporting and that firms that held frequent audit committee meetings reduced financial reporting challenges.

On the other hand, model 2b applied panel Random Effect model to estimate the linkage of AC Independence, Firm Size and FRQ yielding results using Wald Chi-Square tests exhibited that model 1b as a whole was (all the predictors' regression coefficients taken jointly) not significant. Moreover, AC Independence ($\beta= 0.0113$, $p<0.1$) was statistically significant while Firm Size ($\beta= 3.65e\text{-}05$, $p>0.01$) was insignificant. R-squared (R^2) was 0.0254 suggesting that Audit Committee Independence (independent variable) and Firm

Size (moderator) jointly accounted for about 2.54% of the variance in financial reporting quality (dependent variable).

In addition, an interaction term was introduced in model 2b in the panel regression where the relationship between Audit Committee Independence (independent variable), Firm Size (moderator), Audit Committee Independence multiplied by Firm Size (interaction term) and Financial Reporting Quality (dependent variable) was estimated and the results intimated that the whole model (all the predictors' regression coefficients taken jointly) was not significant. Equally important, AC Independence (β= 0.0113, $p<0.1$) had significant influence on Financial Reporting Quality whereas Firm Size (β= 2.70e-05, $p>0.01$) showed no statistically significant relationship with FRQ thereby concluding that Firm Size had no effect on Financial Reporting quality based on study results. Notably, the interaction term (Audit Committee Independence multiplied by Firm Size) was not statistically significant ($p>0.05$). By the same token, R-squared (R^2) was 0.0253 which suggested that AC_IND (independent variable), F_SIZE (moderator) and the interaction term (0.0253) jointly accounted for 2.53% of the variance in financial reporting quality (dependent variable) resulting in insignificant change in R^2.

In view of the results, Firm Size had no moderating impact on the interrelation of AC Characteristics with FRQ; hence we fail to reject the hypothesis. Research findings show that firm size as an indicator of firm characteristics did not moderate the interrelation among AC attributes and FRQ which displayed consistency with that of Aljifri et al. (2014) who found that firm size listing status and industry type impacted positively on the connection between AC independence and FRQ. This equally was supported by

previous empirical evidence on the studies conducted by other scholars (Klein, 2002b; Yang & Krishnan, 2005; Davidson, Stewart & Kent, 2005).

Further analysis using Random Effect in model 1c to estimate the relationship among AC Qualification, Firm Size and FRQ using Wald Chi-Square test indicated that model 1c as a whole was (all the predictors' regression coefficients taken jointly) not significant. Whereas the results showed that Audit Committee Qualification (β= -0.0109, $p<0.1$) was statistically significant, an indication that Audit Committee Qualification had an adverse but plausible influence on FRQ, on the contrary Firm Size (β= 2.71e-05, $p>0.01$) was not statistically significant. R-squared (R^2) was 0.0223 revealing that Audit Committee Qualification (independent variable) and Firm Size (moderator) jointly accounted for 2.23% of the variance in financial reporting quality.

Comparatively, model 2c used regression model to estimate the connection amongst Audit Committee Qualification (independent variable), Firm Size (moderator), Audit Committee Qualification multiplied by Firm Size (interaction term) and FRQ. The results of panel regression indicated that model 2c as a whole was (all the predictors' regression coefficients taken jointly) not significant. While the regression coefficient of AC qualification (β= -0.0109, $p<0.1$) showed statistical significance, however, relationship between Firm Size (β= 2.90e-05, $p>0.05$) and Financial Reporting Quality was insignificant and therefore we infer that Firm Size had no significant effect on FRQ. Likewise, the interaction term (AC Qualification multiplied by Firm Size) exhibited non-statistical significance ($p>0.05$). Additionally, R-squared (R^2) was 0.0221 which suggested that Audit Committee Qualification (independent variable), Firm Size

(moderator) and the interaction term jointly accounted for 2.21% of the variation in FRQ and the change in R^2 was insignificant.

In their study, Madawaki and Amran (2013) found a conclusive association amongst firms with independent AC chair and members with accounting or financial knowledge and FRQ and that firm size did not influence the relationship and affirms the study outcomes. However, the results were contrary to those of Jennifer (2014) who found a direct link between firm indicators and FRQ but failed to indicate the effect of specific firm characteristics linking the relations among AC attributes and FRQ.

In step 1 (model 1d), the Random Effect model estimator was applied to estimate the interrelation amongst AC Size (AC_SIZ), Firm Growth (F_GRT) and FRQ. Findings of panel regression analysis were as shown in Table 5.20. Results from the Wald Chi-Square test indicated that model 1d as a whole was (all the predictors' regression coefficients taken jointly) not significant (P-value>0.05). Furthermore, Audit Committee Size (β = -0.00969, p>0.05) and Firm Growth (β= 0. 1.16e-06, p>0.05) had insignificant impact on financial reporting quality. R-squared (R^2) was 0.0122 suggesting that Audit Committee Size (independent variable) and Firm Growth (moderator) jointly accounted for 1.22% of the variation in Financial Reporting Quality (dependent variable).

Introduction of an interaction term (Firm Growth) in model 2d using Random Effect in testing the interdependence amongst Audit Committee Size (independent variable), Firm Growth (moderator), Audit Committee Size multiplied by Firm Growth (interaction term) and Financial Reporting Quality revealed that the whole model 2d (all the predictors' regression coefficients taken jointly) was insignificant (P-value>.05) when Wald Chi-

Square test was applied. Moreover, AC Size (β= -0.00966, p<0.1) and Firm Growth (β= 1.69e-06, p>0.05) also exhibited non-significance predictors of Financial Reporting Quality. The interaction term (AC_SIZ*F_GRT) also was insignificant (p>0.05). R-squared (R^2) was 0.0123 which showed that Audit Committee Size (independent variable), Firm Growth (moderator) and the interaction term (AC_SIZ*F_GRT) jointly accounted for 1.23% of the variance in financial reporting quality (dependent variable) and change in R^2 was negligible in the model 2d.

It was evident the predictor (Audit Committee Size) and moderator (Firm Growth) were not significant with the interaction term added, Firm Growth doesn't moderate the relationship between AC Attribute (AC_SIZ) and FRQ and therefore, we fail to reject the hypothesis. The study findings found to be consistent with prior studies (Jennifer, 2014; Madawaki & Amran, 2013; Klein, 2002b) who found that firm growth did not influence the connection of AC size with FRQ. This positively confirms that SOCEs with high growth rate will automatically not influence the relationship between FRQ and the size of the AC.

5.6.3 Intervening Effect of Internal Control Framework on the Association between Audit Committee Attributes and Financial Reporting Quality

Third object of research was to determine the effect of Internal Control Framework on the interconnection of AC Attributes and FRQ of SOCEs. The study used ICF_CE, ICF_CA, ICF_RA, ICF_IC and ICF_MN to represent Internal Control Framework; Independence, Qualification, Size, and Meetings conducted in a year represented Audit Committee Attributes while Accrual Quality, Qualitative Characteristics and Timeliness Reporting

were used as indicators for FRQ. Random Effect model was used to estimate the association of FRQ (dependent variable) with AC Independence (independent variable) while neglecting the Internal Control Framework in step 1 of the test. The results of panel regression analysis using Wald Chi-Square test indicated that model 1 as a whole was not significant. However, the model regression coefficient of Audit Committee Independence (β= 0.0113, $p<0.1$) exhibited conclusive and scientifically notable results. R-squared (R^2) was 0.0259, further revealing that Audit Committee Independence (independent variable) accounted for 2.59% of the variance in financial reporting quality (dependent variable) hence revealing that Audit Committee Independence was a significant predictor variable (β= 0.0113, $p<0.1$) demonstrating that significant relationship existed among AC Independence and FRQ.

The results of the second step in the mediation model was used to evaluate the association between Internal Control Framework and AC Attribute while ignoring Financial Reporting Quality which indicated that R-Squared (R^2) was = .001, F (1, 1165) = 0.66, $p >0.05$ intimating that AC Independence (β= -0.0545, $p>0.01$) was insignificant and only explained 0.1% of the variance in the Internal Control Framework. This further explained that AC Independence was insignificant predictor variable ($p>0.05$), hence no consequential association existed between AC and Internal Control Framework. The results of the study shows inconsistency with those of Krishnan (2005) who found out in their empirical investigation that AC independence and qualification (members with financial expertise) had significant link with strong internal controls and FRQ which is supported by those of Hunziker (2013).

Similarly, the third step of the mediation model results where the correlation amidst IC Framework (intervening variable) and FRQ while ignoring Audit Committee Attribute was assessed using Wald Chi-Square analysis which revealed that the whole model was insignificant. Moreover, the model regression coefficient of Internal Control Framework (β= 0.00247, $p>0.05$) was insignificant. R-squared (R^2) was 0.0063 which implied that Internal Control Framework (mediator) accounted for 0.63% of the variation in FRQ. This indicated that Internal Control Framework was not significant predictor variable and therefore, there is insignificant connection of Internal Control Framework with FRQ. In their study, Doyle, Ge and McVay (2007) found that firms with ineffective disclosure of internal controls had low accrual quality which was a measure for FRQ, and therefore, the results of the study were found to be in conflict with the current study results. Similar position has been backed by Doyle and McVay (2007a) who contend that small firms with serious weaknesses in internal control disclose more internal control weakness thereby improving their FRQ.

In panel regression analysis in the fourth step of the mediation model to evaluate the relations amongst FRQ, Internal Control Framework with AC Independence using Wald Chi-Square analysis, the results showed that the whole model was not significant. While findings revealed that AC Independence (β= 0.0114, $p>0.01$) was a significant predicator of Financial Reporting Quality, the model regression coefficient of Internal Control Framework (β= 0.00261, $p>0.05$) showed that it was not statistically significant and therefore, Internal Control Framework had no significant intervening influence on Financial Reporting Quality. Further, R-squared (R^2) was 0.0328 which revealed that Audit Committee Independence and Internal Control Framework (mediator) jointly

accounted for about 3.28% of the variance in Financial Reporting Quality (dependent variable) leading to non-acceptance of the null hypothesis. Furthermore, findings indicated no evidence that internal control framework had significant influence on financial reporting quality. However, Eng and Mak (2003) proffer those firms with voluntary internal control disclosure improving their quality of financial reporting. Hunziker (2013) agrees with the finding by claiming that definite components resulting from agency theory expressly expound inconsistency at a magnitude of discretionary declaration on internal controls.

Additional sub-hypothesis was analyzed in the examination of the intervening effect of IC Framework on the link of AC Attributes to Accrual Quality in SOCEs. In step 1, Panel Random Effect model was run to estimate the interrelations amongst FRQ, AC Attributes where Accrual Quality with AC Qualification were used as proxies for FRQ and AC attributes respectively while ignoring the Internal Control Framework. The results of the analysis reveals that AC Qualification had statistically significant and conclusive association with Accrual Quality (β= 102.0, $p<0.01$) while R-squared (R^2) was 0.011 which implied that Audit Committee Qualification (independent variable) accounted for 1.1% of the variance in financial reporting quality (dependent variable) and therefore, revealing that Audit Committee Qualification was a significant predictor variable ($p<0.01$) thereby confirming the existence of connection between AC Qualification and Accrual Quality, hence FRQ.

In step two of the analysis, panel data were explored to evaluate an association existed among Internal Control Framework and AC Attribute while ignoring FRQ. The results showed that the model was not significant with R-Squared of 0.0004, F (1, 1165) = 0.43, p >0.01 meaning that Audit Committee Qualification explained 0.04% of the variance in Internal Control Framework. Further, the regression coefficient of Audit Committee Qualification was -0.0458 and was not statistically plausible (p>0.01) showing that AC Qualification was not a significant predictor variable (p>0.01), hence no significant relationship existed amidst AC Qualification with IC Framework. This is confirmed by Zhou et al. (2007) in their research which they found out that AC committee with members with less financial and accounting expertise experienced internal control weakness and poor financial reports.

In the third step of the analysis of the intervention panel data were investigated to estimate whether an association existed among Internal Control Framework and FRQ while ignoring Audit Committee Attribute. The model regression coefficient of Internal Control Framework (β= 16.22, p>0.05) was found not to be statistically significant while R-squared (R^2) was 0.002 reflecting that Internal Control Framework (mediator) accounted for 0.2% of the variance in Accrual Quality which represented Financial Reporting Quality. This indicated that Internal Control Framework was not a significant predictor variable and therefore, there was insignificant interconnection of Internal Control Framework with FRQ. We further, noted the inconsistency of the results with previous studies (Krishnan, 2005; Hunziker, 2013) which could be attributed to other invisible factors in these SOCEs which might have not been incorporated in the analysis of data.

Lastly, panel data were scrutinized in the appraisal of an association between FRQ, Internal Control Framework and AC Attributes where Accrual Quality and AC Qualification were used as measures of FRQ and AC Attributes respectively. Results from the analysis revealed that Audit Committee Qualification (β= 102.7, $p<0.01$) was a notable predicator of FRQ while the model regression coefficient of ICF (β= 17.00, $p>0.01$) was not statistically significant and therefore, Internal Control Framework had no significant influence on Financial Reporting Quality. R-squared (R^2) was 0.013 implied that Audit Committee Qualification and Internal Control Framework (mediator) jointly accounted for 1.3% of the variance in Accrual Quality which was a measure of Financial Reporting Quality. We therefore, conclude that Internal Control Framework had no mediation influence on relation between AC Qualification and Accrual Quality; hence acceptance of the null hypothesis.

Another additional sub-hypothesis was analyzed and the first step of the mediation model analysis tested relationship between Qualitative Characteristics and Audit Committee Independence while ignoring the Internal Control Framework using Wald Chi-Square test which indicated that model 1 as a whole was insignificant. Findings further revealed that the model regression coefficient of AC Independence (β= 0.0131, $p<0.1$) was reliably notable while R-Squared (R^2) was 0.0267 indicating that Audit Committee Independence (independent variable) accounted for 2.67% of the variance in Financial Reporting Quality (dependent variable). This showed that Audit Committee Independence was a significant predictor variable ($p<0.1$) demonstrating plausible association existed between AC Independence and Qualitative Characteristics further confirming that audit committee independence had a significance link with FRQ.

Step 2 of the further analysis of the mediation model was in testing the relationship between Internal Control Framework and Audit Committee Attribute while ignoring Financial Reporting Quality and the result showed a representation not scientifically consequential ($p > 0.05$). The panel regression model produced $R^2 = .001$, $F(1, 1165) = 0.66$, $p > 0.05$ indicating that AC Independence explained 0.1% of the variance in Internal Control Framework. Additionally, the regression coefficient of Audit Committee Independence was -0.0545 which was not statistically significant ($p>0.01$) explaining that Audit Committee Independence was not a significant predictor variable ($p>0.05$), hence no significant relation existed between AC Independence and IC Framework.

In step 3 of the intervening representation, regression was carried out in assessing the association of Qualitative Characteristics with Internal Control Framework while ignoring Audit Committee Attribute and the results indicated the model as a whole insignificant. Findings further showed that the model regression coefficient of Internal Control Framework ($\beta= 0.00325$, $p>0.05$) was not statistically significant while R-squared (R^2) was 0.0084 which implied that Internal Control Framework accounted for 0.84% of the variation in FRQ. This further showed that Internal Control Framework was not a significant predictor variable and therefore, there was insignificant association amidst Internal Control Framework with FRQ.

In step 4, the mediation model, panel regression analysis assessed the interconnection between FRQ, Internal Control Framework and Audit Committee Independence. The outcome showed that the model as a whole was insignificant. Results further unveils the evidence that AC Independence ($\beta= 0.0133$, $p>0.01$) was a significant predicator of

Financial Reporting Quality. Additionally, the results indicated the model regression coefficient of Internal Control Framework (β= 0.00341, p>0.05) was not statistically significant, as a result, Internal Control Framework had no significant influence on Financial Reporting Quality. R-squared (R^2) was 0.0358 implying that that Audit Committee Independence and Internal Control Framework jointly accounted for 3.58% of the variance in Financial Reporting Quality.

The study findings confirm that internal control had no intervening effect on association of AC attributes with FRQ of SOCEs. Findings showed inconsistency with the previous studies. For instance, Doyle and McVay (2007a) found that small firm with independent and qualified audit committees which exhibited serious internal control weaknesses disclosed more internal control weakness thus improving financial reporting quality in these organizations. Further, McMullen and Raghunandan (1996) confirm that firms experiencing FR challenges did not have qualified audit committees members with accounting qualification. Further, Zhou et al. (2007) suggest that non-independent AC and with members with less financial and accounting expertise experienced internal control weakness and poor FRQ. This confirms the role strong internal controls plays in the stewardship and governance of SOCEs in Kenya.

5.6.4 Joint Effect of Audit Committee Attributes, Firm Characteristics and Internal Control Framework on Financial Reporting Quality of SOCE in Kenya

The last objective of the research evaluated the joint effects of Audit Committee Attributes, Firm Characteristics and Internal Control Framework on FRQ of SOCEs. The study used Independence, Qualification, Size and Meetings conducted in a year as

indicators for Audit Committee Attributes; Size, Liquidity, Growth and Profitability represented Firm Characteristics while Accrual Quality, Qualitative Characteristics and Timeliness Reporting were used as indicators for FRQ. Findings has shown relationship between Financial Reporting Quality and Audit Committee Independence (β= 0. 0.0149, $p < 0.05$) and between Firm Liquidity ($\beta = 0.000177$, $p < 0.01$) and Financial Reporting Quality was conclusive and statistically significant while the association among FRQ and AC Qualification ($\beta = -0.0154$, $p < 0.05$) was negative and factually significant. Those findings were consistent with studies done by Doyle et al. (2007) and Khlif and Samaha (2016) who found that audit committees which are independent and had qualified members improved financial reporting in private sector and this could be corroborated with study results having similar effect in the public sector.

In contrast, the effect of AC Meetings conducted in a year (β=4.34e-06), Firm Size (β=2.73e-05), Firm Profitability (β=-4.76e-13), Firm Growth (β=6.11e-07), Control Environment (β=-0.00213), Control Activities (β=0.00642), Risk Assessment (β=0.00259), Information and Communication (β=0.00571) and Monitoring (β= 0.00419) were not precisely significant according to the results of the study. R-square (R^2) was 0.0910 suggesting that Audit Committee Attributes, Firm Characteristics and Internal Control Framework jointly accounted for 9.1% of the variance in FRQ of SOCEs resulting in non-acceptance of null hypothesis. The results indicated that AC committee attributes, firm attributes and internal control framework jointly impacted FRQ in the SOCEs and this is confirmed by previous studies (Matari et. al., 2017; Kusnadi et. al., 2015; Khlif & Samaha, 2016).

Additional sub-hypothesis was developed for the evaluation of combined consequence of AC Attributes, Firm Characteristics and Internal Control Framework on Accrual Quality in SOCEs. In first step of the analysis, the intervening variable (Internal Control Framework) was excluded from the first analysis while Accrual Quality was used as an indicator of FRQ. The results exhibited that Audit Committee Independence (β= -42.32, p<0.01) and Firm Liquidity (β= -2.375, p<0.01) had statistically significant and negative joint effect on Accrual Quality while AC Size (β=147.2, p<0.01), Audit Committee Meetings held in a year (β= 51.76, p < 0.01) and Firm Size (β=31.80, p<0.01) had statistically significant and positive joint influence on Accrual Quality. Further, it was evident from the analysis that Audit Committee Qualification (β= 1.454), Firm Profitability (β= -2.20e-07) and Firm Growth (β= 0.607) intimated non-significant joint effects on Accrual Quality. R Squared was 0.123 manifesting that Audit Committee Attributes and Firm Characteristics accounted for 12.3% variance in Finance Reporting Quality. The outcome shows that Audit Committee Attributes and Firm Characteristics when Internal Control Framework was excluded from the analysis exhibited significant joint effects on FRQ of the SOCEs.

When intervening variable (Internal Control Framework) was introduced, the results indicated that Audit Committee Independence (β= -41.64, p < 0.01) and Firm Liquidity (β= -2.709, p<0.01) had statistically significant and negative joint effects on Accrual Quality while AC Size (β= 144.9, p<0.01), AC meetings held in a year (β= 52.27, p<0.01) and Firm Size (β= 31.67, p<0.01) exhibited statistically plausible and positive joint effects on Accrual Quality. Conversely, Audit Committee Qualification (β= 1.845), Firm Profitability (β= -2.13e-07), Firm Growth (β= 0.601) and Internal Control

Framework (β= 10.98) had no significant joint effects on Accrual Quality. R Squared was 0.124 which indicated that Audit Committee Attributes, Firm Characteristics and Internal Control Framework Qualification jointly accounted for 12.4% of variance in FRQ of the SOCEs. We therefore, reject null hypothesis.

These results are confirmed by Bronson et al. (2006) and DeZoort and Salterio (2001) who suggested that AC with members possessing accounting and financial expertise understood the declaration of substantial IC deficiencies and that large firm with audit committees with high frequency in meetings had high probability of voluntary disclosure leading to improved FRQ. In addition, it is evident that SOCEs with smaller AC with frequency in meetings had positive impact on FRQ and this was consistent with those of Song and Windram (2000) and Beasley et al. (2000) who suggested that independent AC reduced financial reporting problems while firms with financial reporting difficulties had fewer number of AC meetings in a year.

5.7 Summary of Research Findings

The chapter discussed the hypotheses testing together with discussions of the research outcome. Further, the four objectives were examined by testing the four hypotheses inferred and data deciphered in accordance with the existing literature. Inferential statistics were used in testing the developed hypotheses using both correlation and regression model. Results of the study led to confirmation of the second and third null hypotheses while the first and fourth null hypotheses were rejected.

The first Hypothesis (H1) examined the link between AC attributes and FRQ of SOCEs. Findings regression exhibited consequential relationship ($p<0.01$) among AC attributes and FRQ. Similarly, findings further showed audit committee attributes showed significant relationship ($p<0.05$) with Accrual Quality while displaying non-statistically significant relationship ($p<0.05$) with Qualitative Characteristics and Timeliness Reporting which were both indicators of FR quality. The overall conclusions noted significant association that existed between AC attributes and financial reporting quality, hence non-acceptance of null hypothesis.

In the second assumption, the moderating impact of FC on interrelation of AC attributes with FRQ of SOCEs was investigated. The findings of analysis showed that firm characteristics had non-significant ($p<0.1$) moderating effect on the correlation among AC attributes and FRQ of the SOCEs. Equally, the outcome indicated that firm liquidity had significant moderating impact on the parallel ($p<0.1$) between AC independence and FRQ while firm size had no significant relations ($p<0.1$) between AC independence and FRQ and between AC qualification and FRQ. Furthermore, the results showed that firm growth had no significant moderating effect on the relations among AC size and FRQ of the SOCE. The research findings fail to decline second null hypothesis.

The third Hypothesis (H3), the intervening effect of IC framework on the link among AC attributes and FRQ of SOCEs was investigated. The findings illustrated that internal control framework had insignificant mediation impact on the interrelations amidst AC attributes and FRQ of SOCEs. The results further indicated that internal control framework still had insignificant mediation effect on the correlation between audit

committee attributes on Accrual Quality and Qualitative Characteristics which were applied as indicators for FRQ. The findings fail to reject null hypothesis three.

In the fourth Hypothesis (H4), the study interrogated the joint effect that audit committee attributes, firm characteristics and internal control framework had on the FRQ of SOCEs. The findings showed that audit committee attributes, firm characteristics and internal control framework had significant joint effect on FRQ of SOCEs. Similarly, the outcome indicated that AC, firm characteristics and internal control framework had a significant joint effect on the Accrual Quality which was a measure for financial reporting quality. Therefore, the null hypothesis four was rejected.

The four hypotheses were tested using inferrential statistics and interpreted in accordance with the existing theoretical and empirical literatures as presented in Table 5.43.

Table 5.43: Summary of Research Objectives, Hypotheses and Test Results

Specific Research Objectives	Hypothesis	Results	Interpretation & Comments
Determine the relationship between Audit Committee Attributes and Financial Reporting Quality of SOCEs in Kenya	*H_{01}:* Audit Committee Attributes has no significant relationship with FRQ of SOCEs in Kenya	β= 0.0148, p<0.01; β= -0.0138, p<0.01; R^2= 0.0695; *H_{01}* is rejected	The link between AC Attributes and FRQ of SOCEs was statistically significant.
	H_{01a}: AC Attributes has no significant relationship with Accrual Quality of SOCEs in Kenya	β= -30.64, p<0.05; β= 35.54, p<0.05; β= 181.0, p<0.01; 89.42, p<0.05; R^2= 0.064 **H_{01a}** is rejected	The association among AC Attributes and AQ of SOCEs was statistically significant.
	H_{01b}: AC Attributes has no significant relationship with Qualitative Characteristics of SOCEs in Kenya	β= 0.0167, p<0.05; β= -0.0142, p<0.01; β= -0.00730; R^2= 0.0653; β= -4.40e-05 Fail to reject **H_{01b}**	The relation between AC Attributes and Qualitative Characteristics in State-owned Commercial Enterprises in Kenya was statistically insignificant.
	H_{01c}: Audit Committee Attributes has no significant relationship with Timeliness Reporting of SOCEs in Kenya	β= -0.145, p>0.01; β=0.0980, p>0.01; β=0.155, p>0.01; β= -0.00509, p>0.01;	The relationship between AC Attributes and Timeliness Reporting of SOCEs was not statistically significant.

		Fail to reject $\mathbf{H_{01c}}$	
To establish the effect of Firm Characteristics on the association between AC Attributes and FRQ of SOCEs in Kenya	***H_{02}:*** Firm Characteristics have no moderating effect on the association between Audit Committee Attributes and FRQ of SOCEs in Kenya	β= 0.0113, p<0.1; β= 0.000177, p<0.01; R^2=0.0309; Prob > chi2<0.05; β= 0.0113, p<0.1; β= 2.62e-05, p>0.1; R^2=0.0253; = -0.0109, p<0.1; β= 2.71e-05, p>0.05; β=3.14e-05, p>0.1; R^2=0.0223; β= -0.00969, p>0.05; β= 0. 1.16e-06, p>0.05; R^2=0.0222; β= -0.00966, p>0.05; β= 1.69e-06, p>0.05; β=1.12e-05, p>0.05; R^2=0.0123 in model 2d. Fail to reject $\mathbf{H_{02}}$	The moderating impact of Firm Characteristics on the link between AC Attributes and FRQ of SOCEs was not significant.
	H_{02a}: Firm Liquidity has no moderating effect on the relationship between Audit Committee Independence and FRQ of SOCEs in Kenya	β= 0.0113, p<0.1; β= 0.000177, p<0.01; R^2=0.0309; Prob > chi2<0.05; R^2=0.0313 in model 2a $\mathbf{H_{02a}}$ is rejected	The moderating effect of Firm Liquidity on the connections between AC Independence and FRQ of SOCEs in Kenya was significant.
	H_{02b}: Firm Size has no	β= 0.0113, p<0.1; β= 2.62e-05,	The moderating effect of Firm

	moderating effect on the relationship between Audit Committee Independence and FRQ of SOCEs in Kenya	p>0.1; R^2=0.0253; Fail to reject **H_{02b}**	Size on the correlation between AC Independence and FRQ of SOCEs was not significant.
	H_{02c}: Firm Size has no moderating effect on the relationship between Audit Committee Qualifications and FRQ of SOCEs in Kenya	β= -0.0109, p<0.1; β= 2.71e-05, p>0.05; β=3.14e-05, p>0.1; R^2=0.0223 Fail to reject **H_{02c}**	The moderating effect of Firm Size on the association between AC Qualification and FRQ of SOCEs was not significant.
	H_{02d}: Firm Growth has no moderating effect on the relationship between Audit Committee Size and Financial Reporting Quality of SOCEs in Kenya.	β= -0.00969, p>0.05; β= 0. 1.16e-06, p>0.05; R^2=0.0222; β= -0.00966, p>0.05; β= 1.69e-06, p>0.05; β=1.12e-05, p>0.05; R^2=0.0123 in model 2d Fail to reject **H_{02d}**	The moderating impact of Firm Growth on the interconnections between AC Size and FRQ of SOCEs was not significant.
Determine the effect of Internal Control Framework on the relationship between AC Attributes and FRQ of SOCEs in Kenya	**H_{03}:** Internal Control Framework has no intervening effect on the relationship between Audit Committee Attributes and Financial	β= 0.0113, p<0.1; R^2=0.0259; β= -0.0545, p>0.01; R^2=0.001; β= 0.00247, p>0.05; R^2=0.0063; β= 0.0114, p<0.1; R^2=0.0328	The mediation impact of Internal Control Framework on the relation between AC Attributes and FRQ of SOCEs was not statistically significant.

	Reporting Quality of SOCEs in Kenya	Fail to reject **H_{03}**	
	H_{03a}: Internal Control Framework has no intervening effect on the relationship between Audit Committee Attributes and Accrual Quality of SOCEs in Kenya	β= 102.0, $p<0.01$; R^2=0.011; β= -0.0458, $p>0.01$; R^2=0.0004; β= 16.22, $p>0.05$; R^2=0.002; β= 102.7, $p<0.01$; β= 17.00, $p>0.01$; R^2=0.002 Fail to reject **H_{03a}**	The mediation impact effect of Internal Control Framework on the relationship between AC Attributes and AQ of SOCEs was not statistically significant.
	H_{03b}: Internal Control Framework has no intervening effect on the relationship between AC Attributes and Qualitative Characteristics of SOCEs in Kenya	β= 0.0131, $p<0.1$; R^2=0.0267; β= -0.0545, $p>0.01$; R^2=0.001; β= 0.00325, $p>0.05$; R^2=0.0084; β= 0.0133, $p<0.01$; β= 0.00341, $p>0.05$; R^2=0.0358 Fail to reject **H_{03b}**	The mediation impact of Internal Control Framework on the relationship between AC Attributes and Qualitative Characteristics of SOCEs was not statistically significant.
Determine the joint effect of AC Attributes, Firm Characteristics and Internal Control Framework on FRQ of SOCEs in Kenya	**H_{04}:** Audit Committee Attributes, Firm Characteristics and Internal Control Framework have no significant joint effect on Financial	β= 0. 0.0149, $p<0.05$; β= -0.0154, $p<0.05$; β= 0.000177, $p<0.01$; β=4.34e-06, $p>0.05$; β=2.73e-05, $p>0.01$; β=-4.76e-13, $p>0.01$; β=6.11e-07;	The combined impact of AC Attributes, Firm Characteristics and Internal Control Framework on FRQ was statistically significant.

	Reporting Quality of SOCEs in Kenya	p>0.01; β=-0.00213, p>0.05; β=-0.00213, p>0.05; β=0.00642, p>0.01; β=0.00259, p>0.01; β=0.00571, p>0.01; β= 0.00419, p>0.01; R^2=0.0910 **H_{04}** is rejected	
	H_{4a}: Audit Committee Attributes, Firm Characteristics and Internal Control Framework have no significant joint effect on Accrual Quality of SOCEs in Kenya	β= -42.32, p<0.01; β= -2.375, p<0.01; β=147.2, p<0.01; β=31.80, p<0.01; β= 1.454, p>0.01; β=-2.20e-07, p>0.01; β= 0.607, p>0.01; R^2=0.123 **H_{04a}** is rejected	The joint effect of AC Attributes, FC and Internal Control Framework on AQ was statistically plausible.

Source : Researcher, 2020

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The overarching goal of the inquiry was to demonstrate the linkage among AC Attributes, Firm Characteristics, Internal Control Framework and FRQ of SOCEs. The section grants a succinct of outcome guided by hypotheses examined and conclusions together with endowments of the research to learning, policy and practice, contribution to theory, research impediments and propositions for prospecting inquiry.

6.2 Summary of Findings

The focal point of research aimed at probing relationship among Audit Committee Attributes, Firm Characteristics, Internal Control Framework and FRQ of SOCEs in Kenya. To realize this objective, four study variables were employed which comprised of independent (Audit Committee Attributes), moderating (Firm Characteristics), intervening (IC Framework) and dependent (FRQ). The independent variable used four elements which consisted of the independence of the AC, qualification of AC members, size of the AC and the number of AC meetings held in a financial year and moderating variable employed four indicators comprising of the Size, Profitability, Liquidity and Growth of the State-owned Commercial Enterprises. The intervening variable used ICF_CE, ICF_RA, ICF_CA, ICF_IC and ICF_MN as measures of IC Framework while FRQ which was the predicted indicator was evaluated using Accrual Quality, Qualitative Characteristics and Timeliness Reporting.

The study was anchored and guided by the Agency Theory which claim that agency dissensions arises from seperation of proprietorship and dominance of corporations where management is seen to advance their own interests contrary to the interests of stockholders. The research was hinged on positivist research philosophy since it was supported by existing theories while statistical techniques were used in hypotheses testing which resulted in drawing of inferences about various relationship among study variables. Further, the study adopted descriptive research design which allowed for assessing for the existence of statistical relations amongst the four study variables and predicting relationships among the variables while ensuring that all transecion variations were incorporated in the model. Study population consisted of one hundred and twenty two (122) State-owned Commercial Enterprises in Kenya as per the Inspectorate of State Corporations of Kenya listing as of 30th June 2018 with exclusion of those incorporated after 2008.

The study applied secondary data that was assembled from the annual reports and audited financial statements of the SOCEs for a duration of eleven (11) years. Further, the study employed mean, median, standard deviation, maximum and minimum as the descriptive measures of data while multicollinearity, heteroscedasticity, serial correlation and Hausman specification tests were conducted as diagnostic tests. Additionally, the study employed correlation analysis, multiple regression analysis while Baron and Kenny (1986) approach was arrogated for analysis of mediation (intervention) and moderation in the hypotheses testing.

Four specific objectives were examined in this study of which objective one sought to determine the linkage between AC Attributes and FRQ of the SOCEs. It was evident from the results of the analysis and testing of the first Hypothesis that statistically significant relationship existed between AC Attributes and FRQ of SOCEs. The second intent was to determine the moderating impact of FC on the association among AC Attributes and FRQ of SOCEs. The results shows that Firm Characteristics had no moderating effect on the linkage of AC Attributes and FRQ. However, the results showed that Firm Liquidity moderated the interrelation of AC independence and FRQ.

Third objective of the study was to investigate the mediation effect of Internal Control Framework on association among AC attributes and FRQ of the SOCEs. The findings shows that Internal Control Framework did not intervene on the relation of AC Attributes and FRQ as there was insignifiant connection exhibited from the analysis. The final goal was to discover the combined impact of AC Attributes, Firm Characteristics and Internal Control Framework on FRQ of the SOCE. The study established that AC Attributes, Firm Characteristics and Internal Control Framework had statistically significant joint impact on the FRQ of the SOCEs.

6.3 Conclusions

This study impute an extensive background for subsequent future research on theory and practice of FRQ of the SOCEs in Kenya. The main aim of the study was to establish the relationships among audit committee attributes, firm characteristics, internal control framework and FRQ of the SOCEs. To accomplish study objective, the association

between AC Attributes and FRQ of the SOCEs in Kenya was tested where the research established that AC Attributes had reliable linkage with FRQ of SOCEs.

Further, it was revealed that AC Independence had closely compelling and adverse correlation whereas AC Qualification, Size and Meetings conducted in a year had mathematically symbolic and conclusive correlation with AQ which was a proxy for FRQ. In addition, AC Independence and Qualification had compelling conclusive and weak interconnection with QC. However, it was also indisputable that AC Attributes had inconsequential relations with Timeliness Reporting. It is therefore, deduced that AC Attributes impacted FRQ. These results may be attributable to the appointment of unqualified audit committee members from boards of directors of these institutions which may not reflect on the requirements as per the PFM regulations 2016 on audit committee guidelines. In addition, the independence of the audit committee is sometimes impacted adversely by the stakeholders.

The findings also indicates that Firm Characteristics did not moderate the link between audit committee attributes and FRQ in SOCEs. Furthermore, findings indicates that Firm Liquidity moderated the relationship among AC Independence with FRQ while Firm Size and Growth did not moderate the association amongst AC Independence, Qualification and Size with FRQ of the SOCEs. We therefore, conclude that Firm Characteristics did not moderate the connection between AC Attributes and FRQ of the SOCEs.

For the third objective, the study results showed that Internal Control Framework did not mediate the relations linking between AC Attributes with FRQ of the SOCEs. The findings further indicated that AC Independence was a significant predictor variable

hence demonstrating significant relationship existed between AC Independence and Financial Reporting Quality with exclusion of Internal Control Framework in the analysis. It was clear that there was no intervening effect of IC Framework on the association between Audit Committee Attributes and financial reporting quality even when analysed by individual components of Financial Reporting Quality (Accrual Quality, Qualitative Characteristics and Timeliness Reporting).

Finally, the study conclude that Audit Committee Attributes, Firm Characteristics and Internal Control Framework jointly impacted FRQ of the SOCEs. Findings shows that AC Independence and Firm Liquidity had positive joint effect while AC Meetings held in a year and Firm Size had negative joint effect on Accrual Quality which was a measure of FRQ. The results also revealed that AC Qualification, Firm Profitability and Firm Growth had no joint effect on Accrual Quality when Internal Control Framework was excluded from the analysis. However, when the Internal Control Framework (intervening variable) was included in the analysis, it was noted that Audit Committee Independence, Size, Meetings held in a year, Firm Size and Firm Liquidity exhibited joint effect on Accrual Quality, hence study conclude that Audit Committee Attributes, Firm Characteristics and Internal Control Framework jointly affected FRQ of the SOCEs.

6.4 Contributions of the Study

The findings indicates numerous improvement to the body of knowledge, theory and practice in the FRQ framework, AC, firm characteristics, and internal control framework as discussed below.

6.4.1 Contribution to Knowledge

The findings adds to the existing studies and understandings of the influence of AC attributes such as independence and qualitification on association between AC independence, qualification and size and improved FRQ. Main contribution of the study realised is that audit committee attributes, firm characteristics, internal control framework jointly predicted FRQ. A number of previous literature (Doyle and McVay 2007; Hunziker, 2013; Kusnadi et al 2015; McMullen and Raghunandan, 1996; Khlif and Samaha, 2016; Al-Matari et al. 2017) that examined the relationship of audit committee attributes, firm characteristics, IC framework and FR reveals inconsistent results. The results of the study were also observed to be inconsistent with those of Best et al. (2001) who established non-conclusive relationship between AC attributes and FRQ. This is further supported by Abbott and Parker (2000) who also argue that firms with independent audit committee are likely to improve financial reporting quality. Sabia and Goodfellow (2005) and Abbott et al. (2003) contend that AC without the right people with right qualifications and expertise to undertake its role could remain moribond and ineffective.

Another notable addition of the research is on non-existence of moderating impact of firm indicators on the interrelations of AC attributes with FRQ. Some previous researchers examined the direct effect of FC on FRQ in listed firms (Klein, 2002b; Yang & Krishnan, 2005; Davidson, Stewart & Kent, 2005; Alsaeed, 2006 ; Olowokure et al. 2015) which has yielded contradictory and inconsistent results with the current study. Beside, these studies used some different indicators of firm characteristics different from the parameters used in the current study. Aljifri et al. (2014) applied firm size, listing

status and industry type and found significant association with financial disclosures. The current study has applied firm liquidity, growth and profitability in addition to firm size which were not used in the previous studies. This contributes to the study through examination of the moderating effect of FC on various measures of FRQ and AC attributes. Since the outcome shows that firm characteristics had no moderating effect except for firm liquidity, it may provide additional information that could be utilized in the future studies.

In addition, the study's contribution was on the evaluation of the intervening impact of IC framework on connection between AC and FRQ of the SOCEs. Earlier studies have examined the direct and mediation impact of IC framework on FRQ and findings have been inconclusive and contradictory (McMullen and Raghunandan, 1996; Eng and Mak, 2003; Ge and McVay, 2005; Krishnan, 2005; Zhou et al. 2007; Doyle et al 2007; Hunziker, 2013). The study provide an insight by analysing the intervening impact of internal control framework on the relationship between audit committee attributes and FRQ using Baron and Kenny (1986) methodology where direct and mediation effects were tested.

6.4.2 Contribution to Policy and Practice

The Board and management of the state-owned commercial enterprises could utilize the findings to make suitable options regarding audit committee attributes and control system to enhance financial reporting quality especially in regards to independence, expertise, proportion and meetings conducted in a year. It is evident from the study findings that AC independence and qualification significantly impact on FRQ. Given the

oversight role played by audit committee, the study provide an insight for the appointing authorities to ensutre that members with right qualification, competence and expertise as well as independent are appointed to the audit committees. This is viewed to improve governance structures leading to improved financial reporting quality.

The standard setters such as Public Sector Accounting Standards Board may use the research findings of the study when reviewing and developing new accounting and financial reporting standards and guidelines for the public sector to develop those standards that takes care of the interests of the financial reporting stakeholders with a view of improving financial information disclosures, hence financial reporting quality accross the public sector institutions. The Public Sector Accounting Standards Board may also initiate proactive activities to train and create awareness among those charged with financial reporting functions in the institutions.

Regulators in financial reporting such as the ICPAK as well as oversight agencies such as Parliamentary Public Accounts and Investment Committees may use the research findings while undertaking their oversight roles to ensure that sufficient disclosures are made in the annual reports and audited financial statements. The Auditor General may also incorporate financial reporting quality metrics in his audit objectives and make value adding recommandations that may improve FRQ in the state-owned enterprises.

As research results demonstrates that audit committee attributes, firm characteristics and internal control framework jointly and significantly influence FRQ of SOCEs, control environment which is a key component in internal control framework should be tightened by ensuring that persons of integrity and ethical values are recruited to management

positions including board members. This shall enhance integrity of the financial reporting processes leading to quality financial information disclosures in annual reports and audited financial statements. In addition, robust risk assessment should be continuously undertaken to identify weaknesses in the financial reporting process as well as appropriate feedback mechanisms is implemented that may win the confidence of financial reporting stakeholders.

6.4.3 Contribution to Theory

The curent study was anchored on Agency Theory (Jensen & Meckling, 1976) and guided by positivism research philosophy which aimed at empirical of testing hypotheses for the purpose of either validating or falsifying theories. The findings indicates statistically and significant impact AC attributes have on FRQ of the SOCEs. AC are appointed to supervise executive of institutions to secure shareholders' interests. It is evident from findings that AC independence and qualifications have greater impact on financial reporting quality and therefore, reducing conflicts that may exist between management and shareholders. This strengthens the agency theory whose focal point is on the agency conflicts arising between the agents (management) and principal (shareholders).

Stakeholders and institutional theories are strenghtened through the influence of the AC committee attributes have on FRQ. Audit committees safeguard the interests of shatakeholders through oversight roles they play in the governance structures of state-owned commercial enterprises. In addition, when strong IC systems are designed and

executed, the institutional capacities of these institutions are enhanced and strenghtened in the interests of shareholders.

6.5 Limitations of the Study

The research faced its own challenges and limitations. First, the scope of the study was limited to State-owned Commercial Enterprises in Kenya and did not include other categories such as regulatory agencies whose inclusion would have yielded different results. As a result of scope limitation, comparison with other categories of State-owned agencies may not be possible and generalization of result be limited to State-owned Commercial Enterprises, hence impacting theory construction in the public sector.

Literature reviewed revealed limited studies in the state-owned conmercial enterprises which could not allow for robust collation of results. Numerous studies in the area focuses on public listed companies who could not be a fair reflection of FRQ of the SOCEs. The research however, conducted a detailed review and analyses of the empirical studies which allowed for comparison with other commercial enterprises accross sectors since they had a similar financial reporting framework.

The study employed secondary data whose aggregation proved to be a challenge due to red tapes in the sector. Most of the data was obtained from the Office of the Auditor General which was more convenient than getting them from the institutions themselves. Research in this sector has experienced limitations due to challenges in acquisition of required data to aid research in the are.

The study could not exhaust statistical methods applicable for similar studies like this one. There were variety of statistical methods that could have been adopted for this study, given that each model adopted has its own advantages and disadvantages. The application of other statistical methods could have provided different results that may augment existing empirical review and studies in this area. The current study has relied on regression and correlation analyses to confirm various impacts and associations.

6.6 Suggestions for Future Research

The AC attributes analysed in the study included independence, size, qualification and the meetings held in a financial year, future studies could examine audit committee experience, executive membership, interlock of directors, internal processes of the committee and individual characteristics of the directors. This may also provide additional insight on how these audit committee attributes impact financial reporting in the publicly-owned organisations.

Secondly, the study only examined the SOCEs for a duration of eleven years running from 2008 to 2018, future studies could conduct a similar study covering the period before 2008 and compare the results. This could give an insight in the improvement of FRQ quality in the sector between these two periods of study.

Thirdly, the study applied secondary data, future studies may explore the application of primary or a combination of both the primary and secondary data. This would provide different perspectives in the FRQ of the SOCEs.

Finally, future similar studies could be conducted accross all categories of state-owned enterprises such as commercial, regulatory, education, health among others to guage FR framework and quality of financial reports.

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APPENDICES

Appendix I: Operation Measures utilized for the qualitative characteristics

Qualitative Characteristics	Question	Operationalization	Concept	Literature
Relevance				
R1	To what extent does the presence of the forward-looking statement help forming expectations and predictions concerning the future of the company	1 = No forward-looking information 2 = Forward-looking information not a part subsection 3 = Apart subsection 4 = Extensive predictions 5=Extensive predictions useful for making expectation	Predictive value	Bartov & Mohanram, 2004; McDaniel et al., 2002; Jonas and Blanchet, 2000;
R2	To what extent does the presence of non-financial information in terms of business opportunities and risks complement the financial information	1 = No non-financial information 2 = Little non-financial information 3 = Useful non-financial information 4 = Useful non-financial information, helpful for developing expectations 5 = Non-financial information presents additional information which helps developing expectations	Predictive value	Nicholas & Wahlen, 2004 Jonas and Blanchet, 2000;
R3	To what extent does the company uses fair value instead of historical cost	1 = Only historical cost 2 = Most historical cost 3 = Balance fair value/historical cost 4 = Most fair value 5 = Only fair value	Predictive value	Schipper & Vincent, 2003; Schipper, 2003; McDaniel *et al.*, 2002; Barth *et al.*, 2001;
R4	To what extent do reported results provide feedback to user of the annual report as to how various market events and significant	1 = No feedback 2 = Little feedback on the past 3 = Feedback is present 4 = Feedback helps understanding how events and transactions influenced the company 5 = Comprehensive feedback	Confirmatory value	Jonas and Blanchet, 2000

	transactions affect the company?			
Faithful representation				
F1	To what extent are valid arguments provided to support the decision for certain assumptions and estimates in the annual reports	1 = Only described estimations 2 = General explanation 3 = Specific explanation of estimations 4 = Specific explanation, formulas explained etc. 5 = Comprehensive argumentation	Verifiability	Maines and Wahlen, 2004; Jonas and Blanchet, 2000
F2	To what extent does the company base its choice for certain accounting principles on valid arguments	1 = Changes not explained 2 = Minimum explanation 3 = Explained why 4 = Explained why + consequences 5=No changes or comprehensive explanation	Verification	Maines and Wahlen, 2004; Jonas and Blanchet, 2000
F3	To what extent does the company, in discussion of the annual results, highlight the positive events as well as negative events	1 = Negative events only mentioned in footnotes 2 = Emphasize on positive events 3 = Emphasize on positive events, but negative events are mentioned; no negative events occurred 4 = Balance +ve/-ve events 5 = Impact of +ve/-ve events is also explained	Neutrality	Cohen *et al.*, 2004; Cohen et al., 2004; Razaee, 2003; Sloan, 2001; Dechow *et al.*, 1996; McMullen. 1996; Beasley, 1996
F4	Which type of auditor's report is included in the annual report	1 = Adverse opinion 2 = Disclaimer of opinion 3 = Qualified opinion 4 = Unqualified opinion: Financial figures 5=Unqualified opinion: Financial figures + internal control	Free from material error, verification, neutrality, and completeness	Willekens, 2008; Kim *et al.*, 2007; Maines & Wahlen, 2006; Gaeremynck & Willekens, 2003
F5	To what extent does company provide information on corporate governance	1 = No description of CG 2 = Information on CG limited, not in apart subsection 3 = Apart subsection 4 = Extra attention paid to information concerning CG	Completeness, verifiability, and free from material error	Jonas and Blanchet, 2000

		5=Comprehensive description of CG		
Understandability				
U1	To what extent is the annual report presented in a well-organized manner? Judgment based on: ▪ Complete table of contents ▪ Headings ▪ Order of components ▪ Summary/conclusion at the end of each subsection	1=not well organized 2=not precise information 3=no clear heading 4=well organized 5= highly organized and detailed	Understandability	Jonas and Blanchet, 2000
U2	To what extent are the notes to the balance sheet and income statement sufficiently clear	1=no explanation 2=very short description, difficult to understand 3=explanation that describes what happens 4=terms are explained (which assumptions etc) 5=everything that might be difficult to understand is explained	Understandability	Courtis, 2005; Jonas & Blanchet, 2000
U3	To what extent does presence of graphs and tables clarifies the presented information	1=no graphs 2=1-2 graphs 3=3-5 graphs 4=6-10 graphs 5=>10 graphs	Understandability	IASB, 2006; Jonas and Blanchet, 2000
U4	To what extent is the use of language and technical jargon in the annual report easy to follow	1=much jargon (industry), not explained 2=much jargon, minimal explanation 3=jargon explained in text/glossary 4=not much jargon, or well explained 5=no jargon, or extraordinary explanation	Understandability	IASB, 2006; Iu 7 Clowes, 2004; Jonas and Blanchet, 2000;
U5	What is the size of	1=no glossary	Understandabili	Jonas and Blanchet,

	glossary	2=less than 1 page 3=approximately 1 page 4=1-2 pages 5=>2 pages	ty	2000;
Comparability				
C1	To what extent do notes to changes in accounting policies explain the implication of the changes	1=changes not explained 2=minimum explanation 3=explained why 4=explained why + consequences 5=no changes or comprehensive explanation	Consistency	Jonas & Blanchet, 2000
C2	To what extent do the notes to revisions in accounting estimates and judgments explain the implications of the revision	1=revision without notes 2=revision with few notes 3=no revision/clear notes 4=clear notes + implications (past) 5=comprehensive notes	Consistency	Vincent & Schipper, 2003; Jonas & Blanchet, 2000;
C3	To what extent did the company adjust previous accounting period's figures, for the effect of the implementation of a change in accounting policy or revisions in accounting estimates	1=no adjustments 2=described adjustments 3=actual adjustments 4=2 years 5=>2 years + notes	Consistency	Cole et al., 2007 Jonas & Blanchet, 2000
C4	To what extent does the company provide a comparison of the results of the current accounting period with previous accounting periods	1=no comparison 2=only with previous year 3=with 5 years 4=5 years + description of implications 5=10 years + description of implications	Consistency	; Cole et al., 2007; Beuselinck & Manigart, 2007; Jonas & Blanchet, 2000;
C5	To what extent is the information in the	1=no comparison 2=only with a few companies	Consistency	IASB, 2008; Cole et al., 2007;

	annual report comparable to information provided by other organizations Judgments based on: ▪ Accounting policies ▪ Structure ▪ Explanation of events (an overall conclusion of comparability compared to annual reports of other organizations	3=limited companies 4=significant comparison 5=detailed comparison		Beuselick & Manigart, 2007; Jonas & Blanchet, 2000;
C6	To what extent does the company presents financial index numbers and ratios in the annual reports	1=no ratios 2=1-2 ratios 3=3-5 ratios 4=6-10 ratios 5=>10 ratios	Consistency	Cleary, 1999
Timeliness				
T1	Natural logarithm of number of days it took for auditor to issue audit certificate after end of accounting period	Natural logarithm of amount of days 1 = 1-1.99 2 = 2-2.99 3 = 3-3.99 4 = 4-4.99 5 = 5-5.99	Timeliness	IASB, 2008

Appendix II : Evaluation Sheet for Internal Control Framework Items

Element	Content	Scores
Control Environment	Statement on integrity & ethical values	Disclosing=1 ; otherwise=0
Risk Assessment	Statement on risk identification & analysis	Disclosing=1 ; otherwise=0
Control Activities	Statement on policies & procedures	Disclosing=1 ; otherwise=0
Information & Communication	Statement on effective communication	Disclosing=1 ; otherwise=0
Monitoring	Statement on monitoring and reporting of deficiencies	Disclosing=1 ; otherwise=0

Appendix III (a): Data Capture Form – Audit Committee Attributes & Firm Characteristics

Name of Firm ……..…… Year Incoporated……. Serial No 001/2018

YEAR	INDEPEDENCE OF AC MEMBERS	QUALIFICATION OF AC MEMBERS	SIZE OF AC	NO. Of AC MEETINGS HELD IN A YEAR	FIRM SIZE	FIRM PROFITABILITY	FIRM LIQUIDITY	FIRM GROWTH
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017								
2018								
Total								

Appendix III (b): Secondary Data Capture Form – Accrual Quality

YEAR	Increase in A/R	Increase in Inventory	Decrease in A/P & Accrued Liabilities	Decrease in Taxes	Increase in Other Assets (Liabilities)	Change in WCP	CFO	Average Assets
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017								
2018								
Total								

Name of Company…….. Year Incoporated……. Serial No. 002/2018

Appendix III (c): Data Capture Form – Internal Control Framework

Name of Firm …….Year Incoporated…….Serial No. 003/2018

Disclosure	'1' if disclosed	'0' if not
Control Environment		
The organisation demonstrates commitment to integrity and ethical values.		
The board of directors demonstrates independence from management and exercises oversight of the development and performance of internal control.		
Management establishes, with board oversight, structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives.		
The organization holds individuals accountable for their internal control responsibilities in the pursuit of objectives.		
Risk Assessment		
The organization specifies objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives.		
The organization identifies risks to the achievement of its objectives across the entity and analyzes risks as a basis for determining how the risks should be managed.		
The organization considers the potential for fraud in assessing risks to the achievement of objectives.		
The organization identifies and assesses changes that could significantly impact the system of internal control.		
Control Activities		
The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.		
The organization selects and develops general control activities over technology to support the achievement of objectives.		
The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.		
Information and Communication		
The organization obtains or generates and uses relevant, quality information to support the functioning of internal control.		
The organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control.		
The organization communicates with external parties regarding matters affecting the functioning of internal control.		
Monitoring		
The organization selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.		
The organization evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate.		
TOTAL NUMBER OF DISCLOSURES		

Appendix III (d): Data Capture Form – Measurement of Qualitative Characteristics & Timeliness

Name of Firm ……Year Incoporated…….Serial No. 004/2018

	Question - relevance	Operationalization	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TT
R1	To what extent does the presence of the forward-looking statement help forming expectations and predictions concerning the future of the company	1 = No forward-looking information 2 = Forward-looking information not an part subsection 3 = Apart subsection 4 = Extensive predictions 5 = Extensive predictions useful for making expectation												
R2	To what extent does the presence of non-financial information in terms of business opportunities and risks complement the financial information	1 = No non-financial information 2 = Little non-financial information, no useful for forming expectations 3 = Useful non-financial information 4 = Useful non-financial information, helpful for developing expectations 5 = Non-financial information presents additional information which helps developing expectations												

R3	To what extent does the company use fair value instead of historical cost (Foot notes)	1 = Only HC 2 = Most HC 3 = Balance FV/HC 4 = Most FV 5 = Only FV												
R4	To what extent do the reported results provide feedback to users of the annual report as to how various market events and significant transactions affect the company (FS, MD&A)	1 = No feedback 2 = Little feedback on the past 3 = Feedback is present 4 = Feedback helps understandings how events and transactions influenced the company 5 = Comprehensive feedback												
	Faithful Representation													
F1	To what extent are valid arguments provided to support the decision for certain assumptions and estimates in the annual report	1 = Only described estimations 2=General explanation 3=Specific explanation of estimations 4=Specific explanation, formulas explained etc. 5 = Comprehensive argumentation												
F2	To what extent does the company	1 = Changes not explained 2 = Minimum												

	base its choice for certain accounting principles on valid arguments	explanation 3 = Explained why 4 = Explained why + consequences 5 = No changes or Comprehensive explanation												
F3	To what extent does the company, in the discussion of the annual results, highlight the positive events as well as the negative events	1 = Negative events only mentioned in foot notes 2 = Emphasizes on positive events 3 = Emphasizes on positive events, but negative events are mentioned; no negative events occurred 4 = Balance pos/neg events 5 = Impact of pos/neg events is also explained												
F4	Which type of auditors' report is included in the annual report	1 = Adverse opinion 2 = Disclaimer of opinion 3 = Qualified opinion 4 = Unqualified opinion: Financial figures 5 = Unqualified opinion: Financial figures + internal control												
F5	To what extent does the company provide information on corporate governance	1 = No description CG 2 = Information on CG limited, not in apart subsection 3 = Apart subsection 4 = Extra attention paid to information												

		concerning CG 5 = Compréhensives description of CG												
	Timeliness	**Measurement**												
	Questions	**Operationalization**												
T1	How many days did it take for the auditor to sign the auditors' report after book year end	Natural logarithm of amount of days 1 = 90 days 2 = 120 days 3 = 150 days 4 = 180days 5 = Above 180 days												
TI		**Date Audit Certificate Issued**												
U1	**Understandability**													
	To what extent is the annual report presented in a well organized manner	Judgment based on: 1= complete table of contents 2= headings 3=order of components 4= summary/ conclusion at the end of each subsection 5= All the above												
U2	To what extent are the notes to the balance sheet and the income statement sufficiently clear	1 = No explanation 2 = Very short description, difficult to understand 3 = Explanation that describes what happens 4 = Terms are explained (which assumptions etc.) 5 = Everything that might be difficult to understand is Explained												
U3	To what	1 = no graphs												

	extent does the presence of graphs and tables clarifies the presented information	2 = 1-2 graphs 3 = 3-5 graphs 4 = 6-10 graphs 5 = > 10 graphs												
U4	To what extent is the use of language and technical jargon in the annual report easy to follow	1 = Much jargon (industry), not explained 2 = Much jargon, minimal explanation 3 = Jargon is explained in text/ glossary 4 = Not much jargon, or well explained 5 = No jargon, or extraordinary explanation												
U5	What is the size of the glossary	1 = No glossary 2 = Less than 1 page 3 = Approximately one page 4 = 1-2 pages 5 = > 2 pages												

Appendix IV: State-owned Commercial Enterprises as at 28.02.2018

No.	Enterprise Name	Ministry	Classification
1	Agricultural Finance Corporation	Agriculture	Commercial
2	Agro-Chemical and Food Company	Agriculture	Commercial
3	Amatsi Water Services Co. Ltd	Environment, Water & Natural Resources	Commercial
4	Bomas of Kenya	East African, Commerce & Tourism	Commercial
5	Central Bank of Kenya	The National Treasury	Commercial
6	Chemilil Sugar Company	Agriculture	Commercial
7	Consolidated Bank Of Kenya Limited	The National Treasury	Commercial
8	Development Bank of Kenya Limited	The National Treasury	Commercial
9	East Africa Portland Cement Company Ltd	Industrialization & Enterprise Development	Commercial
10	Eldama Ravine Water & Sanitation Company	Environment, Water & Natural Resources	Commercial
11	Eldoret Water & Sanitation Co. Ltd	Environment, Water & Natural Resources	Commercial
12	Embe Water and Sanitation Co Limited	Environment, Water & Natural Resources	Commercial
13	Embu Water & Sanitation Co. Ltd	Environment, Water & Natural Resources	Commercial
14	Garissa Water & Sewerage Co Ltd	Environment, Water & Natural Resources	Commercial
15	Gatamathi Water and Sanitation Company Ltd	Environment, Water & Natural Resources	Commercial
16	Gatanga Water & Sewerage Company	Environment, Water & Natural Resources	Commercial
17	Gatundu Water & Sewerage Company	Environment, Water & Natural Resources	Commercial
18	Geothermal Development Company Limited	Energy and Petroleum	Commercial
19	Githunguri Water and Sanitation Co Ltd	Environment, Water & Natural Resources	Commercial
20	Golf Hotel	East African Affairs, Commerce & Tourism	Commercial
21	Gusii Water and Sanitation Company	Environment, Water & Natural Resources	Commercial
22	Imetha Water and Sanitation Company Ltd	Environment, Water & Natural Resources	Commercial
23	Industrial & Commercial Development Corporation	Industrialization & Enterprise Development	Commercial
24	Industrial Development Bank	Industrialization & Enterprise Development	Commercial
25	Isiolo Water and Sanitation Company Limited	Environment, Water & Natural Resources	Commercial
26	Iten Water and Sanitation Company Limited	Environment, Water & Natural Resources	Commercial
27	Jomo Kenyatta Foundation	Education, Science & Technology	Commercial
28	Jomo Kenyatta University Enterprise Services	Education, Science & Technology	Commercial

29	Kabarnet Hotel	East African Affairs, Commerce & Tourism	Commercial
30	Kahuti Water and Sanitation Company Limited	Environment, Water & Natural Resources	Commercial
31	Kakamega -Busia Water Supply Company - Western Water	Environment, Water & Natural Resources	Commercial
32	Kapenguria Water and Sanitation Company Limited	Environment, Water & Natural Resources	Commercial
33	Kapsabet Nandi Water Services Company	Environment, Water & Natural Resources	Commercial
34	Karimenu Water & Sewerage Co Ltd	Environment, Water & Natural Resources	Commercial
35	Karuri Water & Sewerage Company	Environment, Water & Natural Resources	Commercial
36	Kenya Airports Authority	Transport and Infrastructure	Commercial
37	Kenya Broadcasting Corporation	Information, Communication &Technology	Commercial
38	Kenya Deposits Protection Authority	The National Treasury	Commercial
39	Kenya Electricity Generating Company Limited	Energy and Petroleum	Commercial
40	Kenya Electricity Transmission Company Limited	Energy and Petroleum	Commercial
41	Kenya Industrial Estates Limited	Industrialization & Enterprise Development	Commercial
42	Kenya Literature Bureau	Education, Science & Technology	Commercial
43	Kenya Meat Commission	Agriculture	Commercial
44	Kenya National Shipping Line Ltd	Transport and Infrastructure	Commercial
45	Kenya National Trading Corporation	East African Affairs, Commerce & Tourism	Commercial
46	Kenya Pipeline Company	Energy and Petroleum	Commercial
47	Kenya Ports Authority	Transport and Infrastructure	Commercial
48	Kenya Post Office Savings Bank	The National Treasury	Commercial
49	Kenya Power and Lighting Company	Energy and Petroleum	Commercial
50	Kenya Railways Corporation	Transport and Infrastructure	Commercial
51	Kenya Reinsurance Corporation	The National Treasury	Commercial
52	Kenya Safari Lodges & Hotel	East African Affairs, Commerce & Tourism	Commercial
53	Kenya School of Monetary Studies (Consolidated under CBK)	The National Treasury	Commercial
54	Kenya Seed Company Limited	Agriculture	Commercial
55	Kenya Tourist Development Corporation	East African Affairs, Commerce & Tourism	Commercial
56	Kenya Wildlife Service	Environment, Water & Natural Resources	Commercial
57	Kenya Wine Agencies Limited	Industrialization & Enterprise Development	Commercial
58	Kenya Wine Agencies Limited (Consolidated under KWA (Holding)	Industrialization & Enterprise Development	Commercial
59	Kericho Water and Sanitation Company Limited	Environment, Water & Natural Resources	Commercial
60	Kiambere-Mwingi Water & Sanitation Company	Environment, Water & Natural Resources	Commercial
61	Kiambu Water & Sewerage Company Ltd	Environment, Water & Natural Resources	Commercial

62	Kibwezi-Makindu Water and Sanitation Company Ltd	Environment, Water & Natural Resources	Commercial
63	Kikuyu Water & Sewerage Company	Environment, Water & Natural Resources	Commercial
64	Kilifi-Mariakani Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
65	Kirinyaga Water and Sanitation Co Limited	Environment, Water & Natural Resources	Commercial
66	Kisumu Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
67	Kitui Water and Sanitation Co.	Environment, Water & Natural Resources	Commercial
68	Kwale Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
69	Lamu Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
70	Limuru Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
71	Lowdwar Water and Sanitation Co Ltd	Environment, Water & Natural Resources	Commercial
72	Machakos Water and Sewerage Co. Limited	Environment, Water & Natural Resources	Commercial
73	Malindi Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
74	Mandera Water & Sewerage Company Ltd	Environment, Water & Natural Resources	Commercial
75	Maralal Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
76	Mathira Water and Sanitation Company	Environment, Water & Natural Resources	Commercial
77	Matungulu - Kangundo Water and Sewerage Co.	Environment, Water & Natural Resources	Commercial
78	Mavoko Water and sewerage Company Limited	Environment, Water & Natural Resources	Commercial
79	Mbooni Water and Sanitation Co.	Environment, Water & Natural Resources	Commercial
80	Meru Water and Sewerage Services	Environment, Water & Natural Resources	Commercial
81	Migori Kuria Transmara Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
82	Miwani Sugar Company	Agriculture	Commercial
83	Mombasa Water Supply and Sanitation Services Company	Environment, Water & Natural Resources	Commercial
84	Mount Elgon Hotel	East African Affairs, Commerce & Tourism	Commercial
85	Moyale water and sewerage company	Environment, Water & Natural Resources	Commercial
86	Muhoroni Sugar Company (Under Receivership)	Agriculture	Commercial
87	Muranga South Water & Sanitation Company Limited	Environment, Water & Natural Resources	Commercial
88	Muranga Water and Sanitation Company Ltd	Environment, Water & Natural Resources	Commercial
89	Mwala Water and Sanitation Company	Environment, Water & Natural Resources	Commercial
90	Mwea Rice Millers Limited	Agriculture	Commercial
91	Nairobi City Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
92	Naivasha Water Sewerage and Sanitation Company	Environment, Water & Natural Resources	Commercial
93	Nakuru Rural Water and Sanitation Services Company	Environment, Water & Natural Resources	Commercial
94	Nakuru Water and Sanitation Services Company	Environment, Water & Natural Resources	Commercial

95	Nanyuki Water and Sanitation Company Limited	Environment, Water & Natural Resources	Commercial
96	Naro Moru Water & Sanitation Company	Environment, Water & Natural Resources	Commercial
97	Narok Water and Sanitation Company	Environment, Water & Natural Resources	Commercial
98	National Bank of Kenya	The National Treasury	Commercial
99	National Cereals and Produce Board	Agriculture	Commercial
100	National Hospital Insurance Fund	Health	Commercial
101	National Housing Corporation	Lands, Housing & Urban Development	Commercial
102	National Oil Corporation Of Kenya Ltd	Energy and Petroleum	Commercial
103	National Social Security Fund	Labour, & Social Security Services	Commercial
104	New Kenya Co-operative Creameries Limited	Agriculture	Commercial
105	Ngagaka Water and Sanitation Company Ltd	Environment, Water & Natural Resources	Commercial
106	Nithi Water and Sanitation Company	Environment, Water & Natural Resources	Commercial
107	Nol-turesh - Loitoktok Water and Sanitation	Environment, Water & Natural Resources	Commercial
108	Numerical Machining Complex	Industrialization & Enterprise Development	Commercial
109	Nyahururu Water and Sanitation Company Ltd	Environment, Water & Natural Resources	Commercial
110	Nyandarua Water and Sanitation Company Ltd	Environment, Water & Natural Resources	Commercial
111	Nyayo Tea Zones Development Corporation	Agriculture	Commercial
112	Nyeri Water and Sewerage Company Ltd	Environment, Water & Natural Resources	Commercial
113	Nzoia Sugar Company Limited	Agriculture	Commercial
114	Nzoia Water and Sanitation Company Limited	Environment, Water & Natural Resources	Commercial
115	Ol-Kalou Water and Sanitation Company Ltd	Environment, Water & Natural Resources	Commercial
116	Olkejuado Water and sewerage Company Limited	Environment, Water & Natural Resources	Commercial
117	Oloolaiser Water & Sewerage Co Ltd	Environment, Water & Natural Resources	Commercial
118	Othaya-Mukurweini Water and Sanitation Company Limited	Environment, Water & Natural Resources	Commercial
119	Postal Corporation of Kenya	Information and Communication	Commercial
120	Pyrethrum Board of Kenya	Agriculture	Commercial
121	Ruiru - Juja Water & Sewerage Company	Environment, Water & Natural Resources	Commercial
122	Rukanga Water and Sanitation	Environment, Water & Natural Resources	Commercial
123	School Equipment Production Unit	Education, Science & Technology	Commercial
124	Siaya Bondo Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
125	South Nyanza Sugar Company	Agriculture	Commercial
126	South Nyanza Water and Sanitation Company	Environment, Water & Natural Resources	Commercial
127	Sunset Hotel	East African Affairs, Commerce & Tourism	Commercial

128	Talilbei Water and Sewerage Company	Environment, Water & Natural Resources	Commercial
129	Tavevo Water & Sewerage Co Limited	Environment, Water & Natural Resources	Commercial
130	Tetu Aberdare Water and Sanitation Company	Environment, Water & Natural Resources	Commercial
131	Thika Water & Sewerage Company Ltd	Environment, Water & Natural Resources	Commercial
132	Tourism Fund (Board of Trustees)	East African Affairs, Commerce & Tourism	Commercial
133	University of Nairobi Enterprise Services Limited	Education, Science & Technology	Commercial
134	Wote Water and Sewerage Company Ltd	Environment, Water & Natural Resources	Commercial
135	Yatta Service Water Co.	Environment, Water & Natural Resources	Commercial
136	Yatta Vineyards Limited (Consolidated under KWA (Holding)	Industrialization & Enterprise Development	Commercial

Source: The National Treasury, 2018